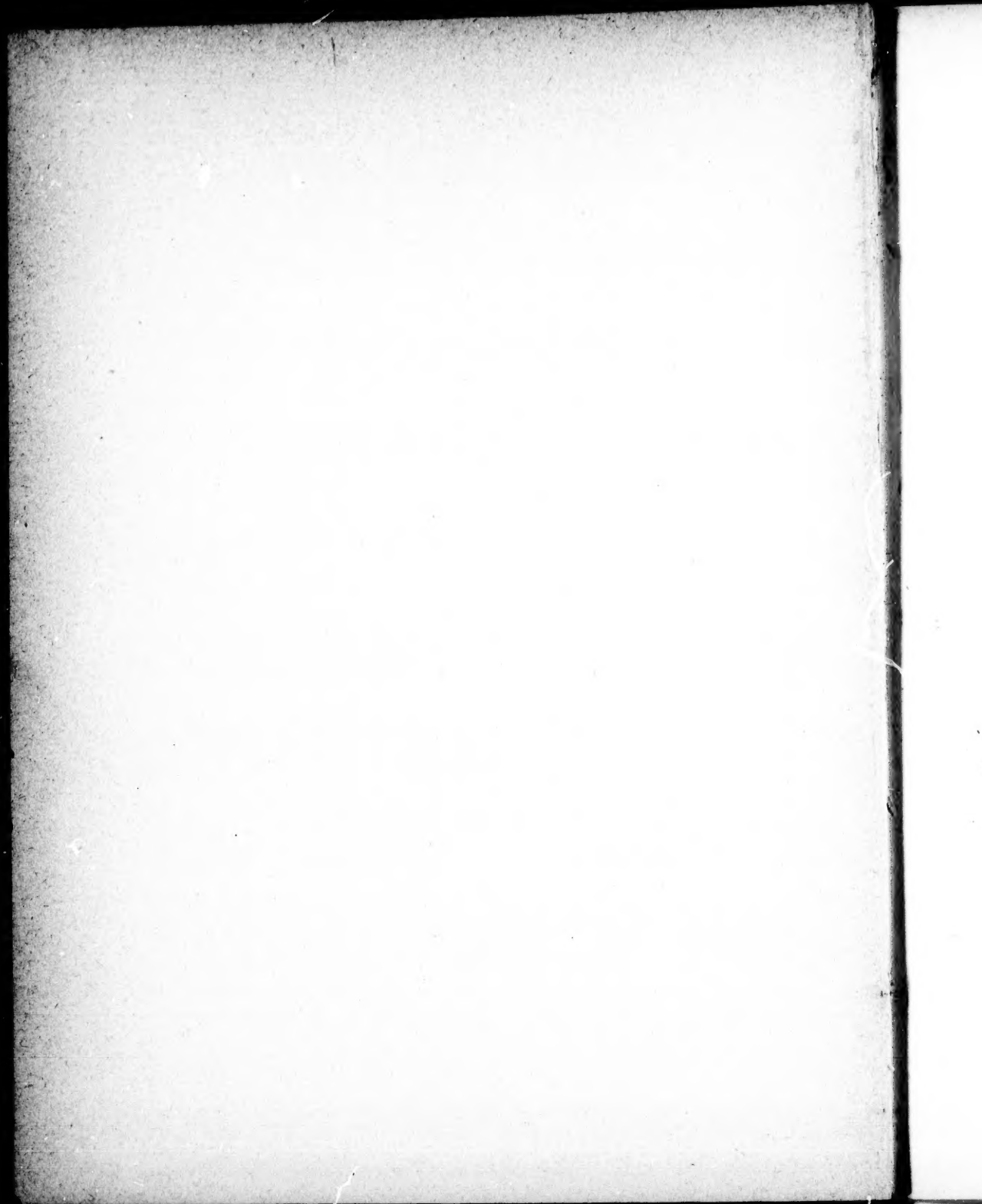
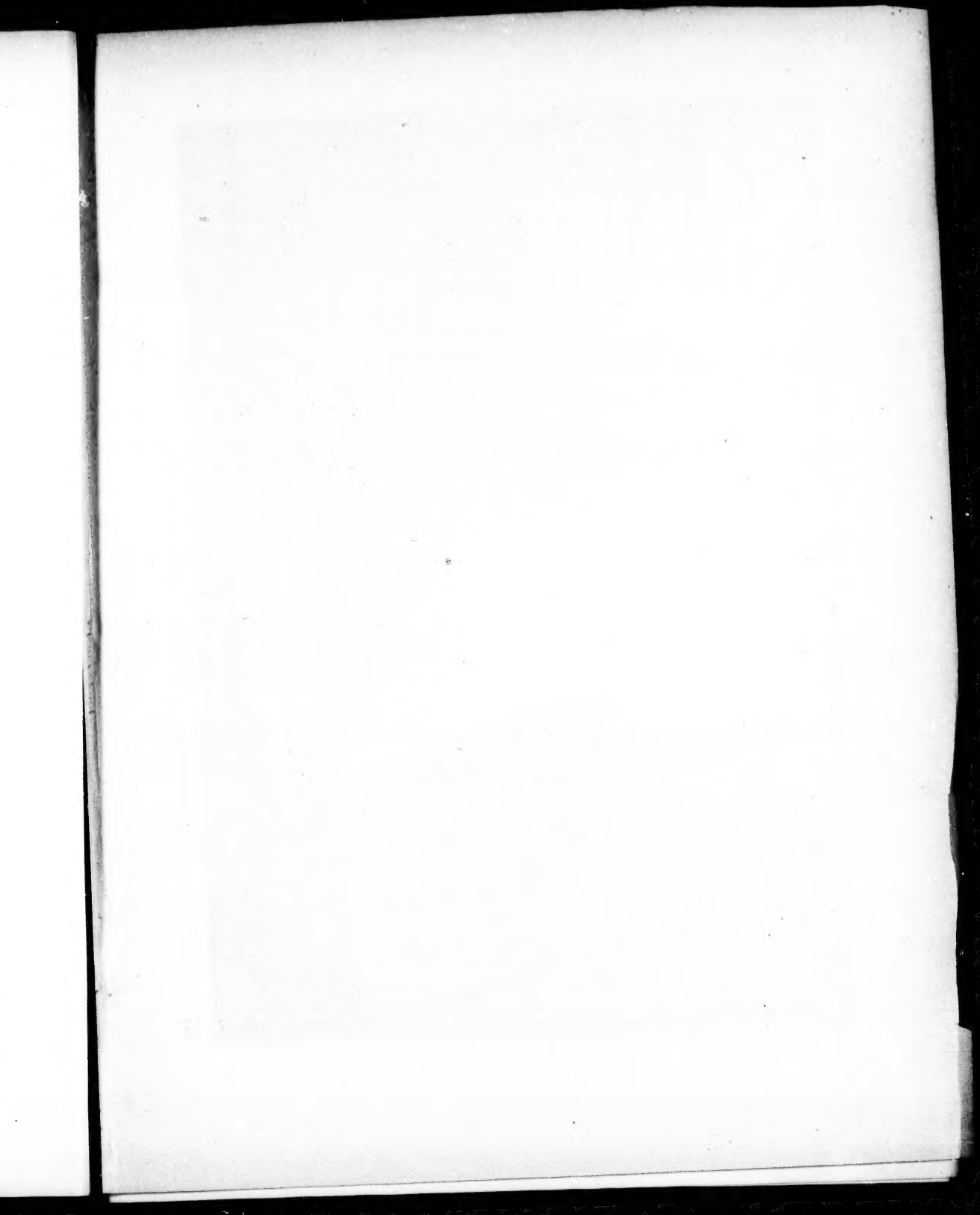
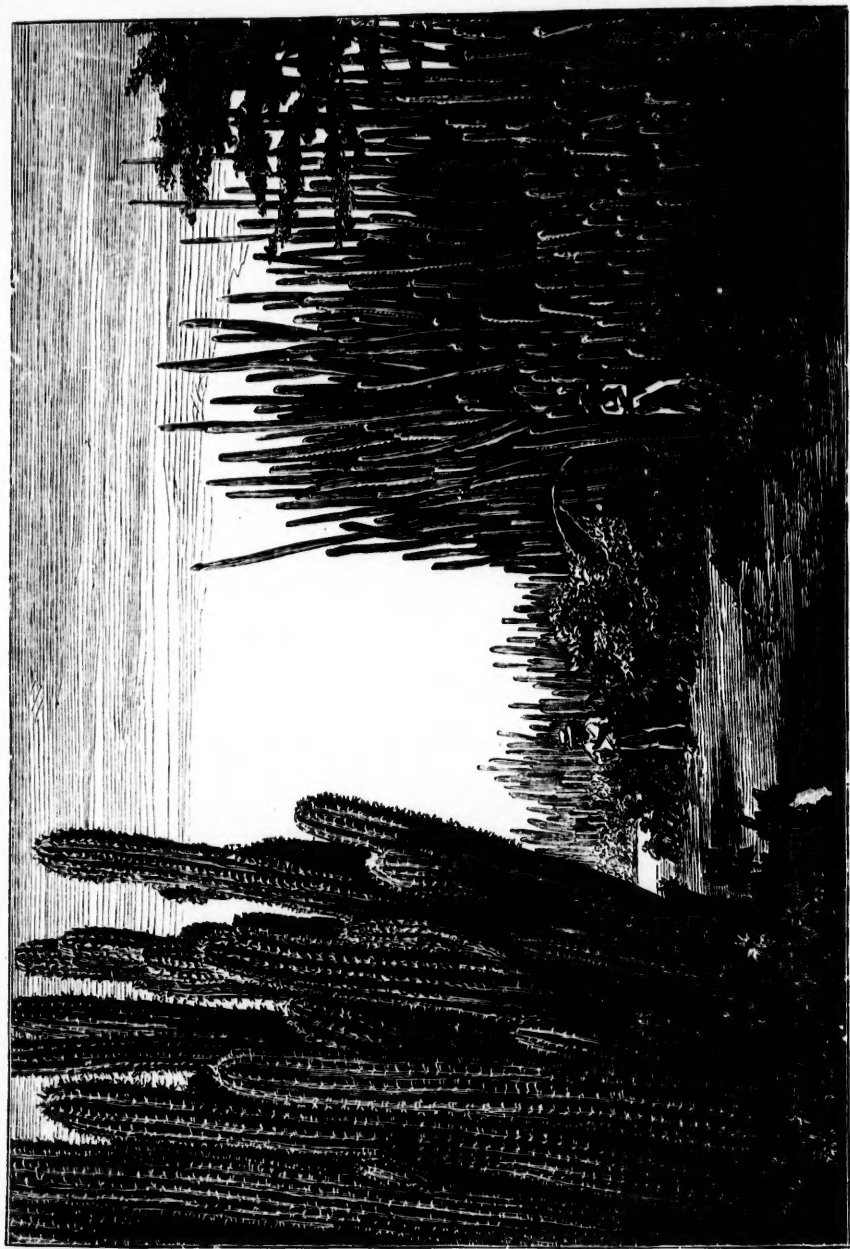




THE COUNTRIES OF THE WORLD.

THE END OF THE WORLD





A THICKET OF CACTUS (*CEREUS DYCKEII*) IN GUATEMALA.

THE

CITIES OF THE WORLD:

WITH THE NAMES OF THE CITIES, AND THE RIVERS

AND THE NAMES OF THE CITIES

CASEY & CO.

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1870



LAKE ATUATZ, GUATEMALA

THE
COUNTRIES OF THE WORLD:

BEING

A POPULAR DESCRIPTION OF THE VARIOUS CONTINENTS, ISLANDS, RIVERS,
SEAS, AND PEOPLES OF THE GLOBE.

BY

ROBERT BROWN, M.A.,

PH.D., F.L.S., F.R.G.S.,

Author of "The Peoples of the World," etc. etc.

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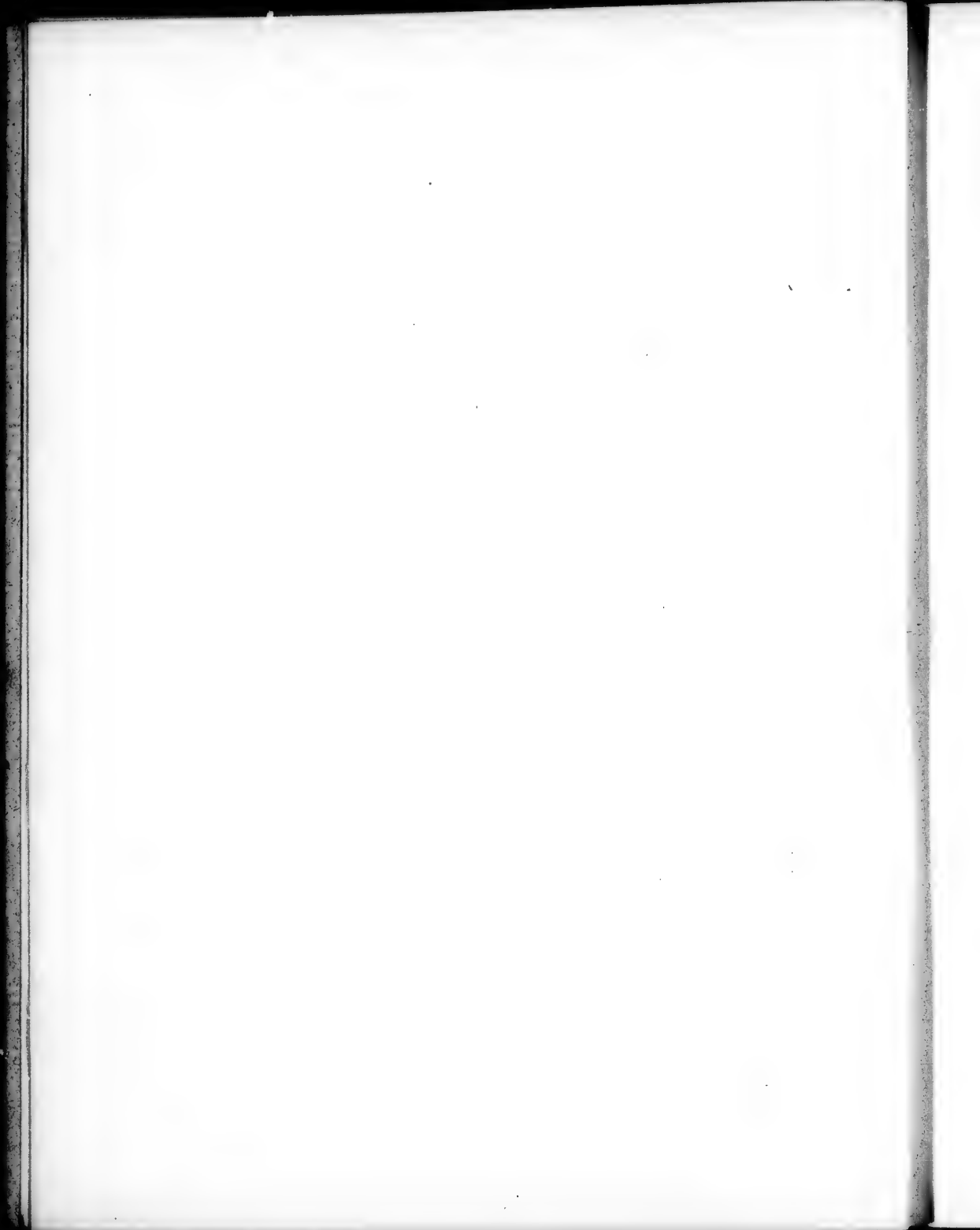
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THE COUNTRIES OF THE WORLD.

CHAPTER I.

CENTRAL AMERICA: ITS PHYSICAL GEOGRAPHY.



THREE hundred years ago, or more, the region we are now entering was a land of romance. A century later it was still the scene of many a fight for gold and for glory, and even in the memory of those not long ago dead, its bays, "keys," and danky river mouths were the lurking-places of the pirates and buccaneers who made the Caribbean Sea and the Gulf of Mexico waters dreaded by the peaceful mariner. The neck of land connecting North and South America, dividing the Pacific from the Atlantic, has always occupied a prominent position in the world's history since the day when Vasco Nuñez de Balboa first crossed it and sighted the "silent sea" beyond. The man whose name is henceforward for all time to be linked with this great and gallant exploit—the most commander-like soldier of his day—arrived at the isthmus in a most prosaic fashion. He was a bankrupt of Hayti, or Hispaniola, and as the Hispaniolians objected to people who owed money leaving the island, Balboa was smuggled over to the Spanish Main in a cask on board Encisco's vessel. Such was the manner of the man's coming. From that year—1513—to this, the isthmus has seen a mighty succession of similar heroes. For nearly three centuries it witnessed a stream of armed adventurers struggling through the forest, driving before them troops of wasting Indians laden with cannon and stores, panting to reach Panama. From Panama they spread southward in search of the gold and silver of the Incas of Peru, and northward to take tithe of the riches of the Aztecs of Mexico. From the south and the north again were ever pouring floods of adventurers, returning homeward laden with ill-gotten wealth, or enfeebled with wounds, disease, and disappointment. To Panama came the "plate ships" from that empire of the Indies which Columbus and his companions had won for their sovereign, and in or about Panama waited the cruisers, the buccaneers, or the pirate—for it is difficult to distinguish them—of all nations, ready to reap where they had never sown. Then the scene changed. To Panama came wanderers in search of wealth, content to live by honest labour and fair trade. But the ill-fated Darien expedition is a sad page in Scottish history. Then the colonists shook off

the hated yoke of Spain. They escaped a despotism, but speedily groaned under a democracy which no master spirit has even yet been able to control. Anarchy and revolution reign supreme, and the unhappy land has for fifty years seen 400 rulers, all incompetent, and few worthy, in even a remote degree, of the position to which they attained and temporarily held. A few years more, and the isthmus again saw crowds of excited men rushing after gold. The old days of the conquistadores were revived in another form, and the gold-seekers of California and British Columbia were almost as wild after riches as their predecessors, the companions of Cortes, Pizarro, and Balboa, and nearly as lawless as those of Morgan, Drake, and Dampier. For years millions of treasure were carried over the railway, which now spans the isthmus, just as in days past millions were borne across on the way to Spain. But, as in these days, little remains. Over the soil of Central America wealth passed, but the wealth passed away. Yet those who oftentimes plundered Panama could scarcely believe that the city was poor; a city that saw so much gold must surely have some of it. Under any other people than the Spaniards the isthmus, so favoured by geographical position, ought to grow great and powerful. But it does not. Even the prosperity which the railway for a time gave it has partly gone, for the traffic to California crosses the American continent far to the north, while in time Vera Cruz will be the starting-point for a network of railways which will open up Mexico and let into that country the sweetness and light of a more wholesome civilisation than its own. By-and-by a canal may join the two oceans that lave the shores of Central America, and again bring prosperity to the country through which it is cut. But when that happy event takes place, Central America will doubtless feel the grasp of stronger hands than those which now supervise, but neither guide nor control, the chaos which is dignified by the name of government.

Central America is a very natural division. It is the narrowest portion of the continent, and forms a well-defined *neuvus* between its two great land masses. Properly speaking, it should include the whole extent of territory from the Isthmus of Tehuantepec to the Isthmus of Darien. Politically, however, it only comprises the five independent Republics of Guatemala, San Salvador, Honduras, Nicaragua, and Costa Rica, with the English colony of Belize, or British Honduras, which may be said to be the Atlantic coast region of Guatemala, and that slice of Nicaragua which used to be known as the kingdom of the Mosquito Shore. The Isthmus of Tehuantepec and the Peninsula of Yucatan are now included in Mexico, while the Isthmus of Panama constitutes a State of the United States of Colombia—the Old Republic of New Grenada—and is therefore, politically, a part of South America. However, political divisions have nothing usually to do with natural ones. Accordingly, in the following pages we shall consider Central America, physically, as comprising most of the isthmus; though, politically, we must speak of it as embracing only the republics and colony already mentioned. For convenience sake we may first sketch out the broad features of the region, then consider, so far as may be, each political division individually, and then, on the basis of the knowledge thus acquired, give a more general account of the products and resources of the whole region, as well as the social features which may be common to all of it.

GENERAL GEOGRAPHY.*

Glancing at the map of the world we see not only how almost in the centre of it is the region we are about to describe, but how favoured it is in having abundance of harbours and diversified features. At the Isthmus of Tehuantepec the Gulf of Mexico approaches the Pacific to within two hundred miles. Southward, the isthmus widens out and embraces the high temperate table-lands and mountainous region of Guatemala on the west; and the plains of Tobasco, Chiapas, and Yucatan, in Mexico, upon the north and east. The Gulf of Honduras on the south-east, however, again narrows the continent to less than two hundred miles. Here also the mountain chain of Cordillera is interrupted, and its place is taken by a great transverse valley, only divided by a slightly elevated ridge, from one side of which the large river Ulua flows to the Atlantic and the smaller Goascoran to the Pacific. Further south is Nicaragua, with a great basin-like formation, in which lie the well-known lakes which give that portion of the isthmus its chief importance, while still nearer the equator is the Isthmus of Panama, or Darien, over which, as Mr. Squier aptly remarks, "the tide of emigration has twice poured its floods, once upon Peru, and again upon the glittering shores of California." It has been observed of the isthmus that it possesses in its physical aspect and configuration of surface something belonging to all the world. "High mountain ranges, isolated volcanic peaks, elevated table-lands, deep valleys, broad and fertile plains, and extensive alluvions, relieved by large and beautiful lakes and majestic rivers, the whole teeming with animal and vegetable life, and possessing every variety of climate, from the torrid heats to the cool and bracing temperature of eternal spring. The great chain of the Cordillera here, as in South America, runs nearest to the Pacific Coast, but in places it is interrupted, and assumes the form of detached ranges and isolated elevations, groups or knots of hills, between which the streams from the interior high valleys or elevated plains wind their way to the two oceans. As a consequence, the principal alluvions border on the Gulf of Mexico and the Caribbean Sea. Here rain falls in greater or less abundance for the entire year, vegetation is rank, and the climate is damp and proportionately unsalubrious. The trade winds blow from the north-east, and the moisture with which they are saturated, condensed on the elevated parts of the continent, flows down towards the Atlantic. The Pacific slope is therefore comparatively dry and healthful, as are also the elevated regions of the interior."† This configuration of the surface has had from the remotest time, as it has yet, an influence on the destinies of the race who inhabit the isthmus. On the high table-lands of Honduras and Guatemala lived a people advanced in civilisation, of great intelligence, carvers of sculpture, builders of cities,

* Bailey: "Central America;" De Waldeck: "Voyage Pittoresque et Archéologique dans le Province d'Yucatan (Amérique Central);" Stephens: "Central America;" Squier: "Nicaragua;" "The States of Central America;" Scherzer: "Travels in the Free States of Central America;" Wagner and Scherzer: "Die Republik Costa Rica, &c.;" Wells: "Honduras;" Fröbel: "Central America, &c.;" Morelet: "Travels in Central America;" Bidwell: "The Isthmus of Panama," and the various works and papers referred to under special heads in the ensuing pages.

† Squier: "Honduras," p. 3. No one can study Central America without acknowledging his endless obligations to this greatest authority on that region. I accordingly do so once for all. I may add that I visited the Isthmus of Panama in 1863, and crossed the continent through Nicaragua in 1866. The notes taken in these hurried peeps at Central America I have incorporated in the descriptions which follow.

and artificers in the precious metals. In the wide and fertile savannas or prairies lay lands inviting to agriculture; while the maize—that all-powerful element in American civilisation—was probably indigenous in this part of the continent, and spread thence northward, as the tribe from this *officina gentium* migrated in search of new homes in Florida, and even to Mexico. On the Atlantic shores, on the other hand, there is nothing to cause us to believe that the aboriginal inhabitants have ever been anything but the rudest savages. Here nature is also bountiful, but not in the direction tending to the benefit of



VIEW ON THE RIO DULCE, GUATEMALA.

man. The damp swampy shores produce a rank vegetation which even the appliances of man have been unable to cope with, and the steaming soil sends up pestilential miasmatic vapours. In this sweltering region man could form no permanent settlement, nor could he successfully cultivate the soil. Hence he has become—as to his habits—a nomadic hunter, while the struggle for existence eats out of him, or rather fails to give him leisure for any religious aspirations worthy of the name, or to develop political or social institutions of a stage more advanced than that of the family. In the limited sense we have taken it, Central America will contain in round numbers nearly 15,700 square geographical miles, is in length from 800 to 900 miles, and has a varying breadth of 28 to 300 miles. Both on the Atlantic and Pacific shores there are numerous seaports. We may particularise, on the Caribbean Sea, Yzabal and Santo Tomas

in the Republic of Guatemala; Omoa, and Truxillo, in Honduras; San Juan Del Norte, or Grey Town, in Nicaragua; and Matina, in Costa Rica. On the Pacific shore there are Nicoya, belonging to Costa Rica; Realejo, to Nicaragua; La Union, or Conchagua, Libertad, and Acajutla, belonging to San Salvador; and Ystapa, to Guatemala. The last three, however, are mere open roadsteads, but the others are very good harbours indeed. In addition there are San Juan Del Sur, in Nicaragua; Culebra and Salinas, in Costa Rica, though in an almost uninhabitable district; Jiquilisco in Salvador, and Olos in Guatemala, all on the Pacific.



VIEW ON THE RIO POLOCHIC, GUATEMALA.

The mountain range which forms the backbone of the isthmus is not so elevated as the mountains further south and north. Yet the peaks are by no means low, some of the more prominent points rearing to nearly 14,000 feet, though from 5,000 to 7,000 feet may be taken as the average. There are amongst them several volcanic cones, two or three of them still active, and the others extinct. They are all near the Pacific coast, none being found in the interior or close to the Atlantic shore. This chain sends off lateral spurs, so that the whole of Central America is an alternation of mountain valleys clothed with dense vegetation, and nowhere allowing of great plains, though naturally presenting so immense a variety of climate, that in the course of a day's journey the traveller may pass through hot, temperate, and cold regions. The great mountain ranges disappear before they reach the Isthmus of Panama, the high Cordillera of the north and south dwindling down to elevations of from 500

to 1,000 feet, and which do not even form a continuous chain, but are isolated and independent of each other, so that every here and there low plains or valleys intersecting the isthmus can be found amongst them. Rivers are found everywhere, and hot springs—as might be expected from the volcanic character of the country—are common. None of the rivers are, however, large, and before most of them can be of much use for navigation they would require to be greatly improved, as they are liable to be silted up by the washing away of the soft clay banks between which they generally flow. All of them are obstructed by bars at their mouths; many of them have falls and rapids, and owing to the rapidity of the current and the amount of sediment they are continually bearing down to the sea, are apt to get shoaled up here and there, and, accordingly, have a very variable depth. The San Juan is perhaps the river which is of most importance, but even it of late years has got shoaled up in places, and owing to the formation of a bar at its mouth, has been all but destroyed for navigation for any craft save small steamers. The lakes of the region are in some cases of large size, but only three of them, namely, Nicaragua and Managua in Nicaragua, and Golfo Dulce in Salvador, are ever likely to be of any great use commercially as a highway for commerce or travel. The Golfo Dulce, or Gulf of Dulce, is the means by which most of the foreign trade of Guatemala is carried. It communicates with the Atlantic by a smaller lake called the Golfete and the Rio Dulce. The Polochic we shall have occasion to mention when speaking of Guatemala, through which it flows, first discharging itself into the Gulf of Dulce, and then into the Bay of Honduras (pp. 4, 5).

CLIMATE.

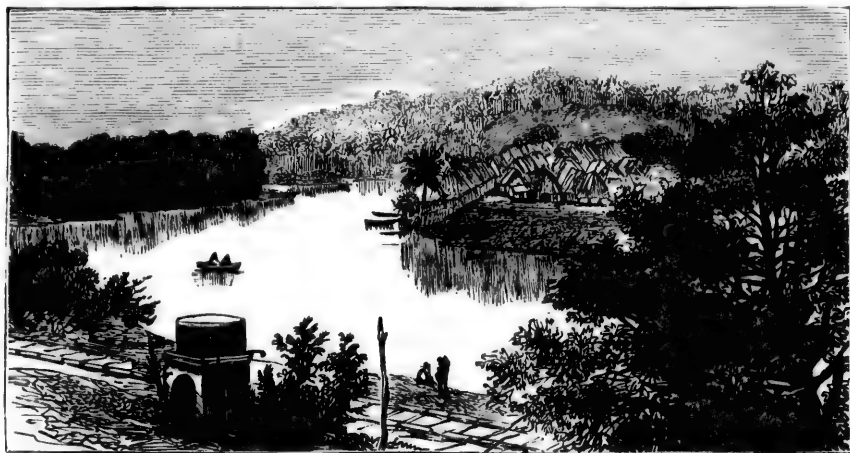
With the exception of the lowlands, Central America is not so hot as we should expect a region occupying nearly the middle space between the equator and the Tropic of Cancer to be. The heat of the Pacific shore, owing, probably, to the greater dryness and purity of the atmosphere in that region, is not so intense as on the Atlantic coast. The north-east trade winds arrive at America laden with moisture, but the greater portion of their vapour is intercepted by the mountains of the interior, and flows down the Atlantic slopes in streams and rivers. But the mountains of Central America are not high enough or continuous enough to entirely intercept the trade winds. Accordingly they blow entirely across the continent at this spot, arriving, however, at the Pacific deprived of much of their moisture, and cooled by passing over the elevated region of the interior. Hence, as Mr. Squier has pointed out, the greater salubrity of that declivity, the comparative coolness and dryness of its climate, and the consequently more numerous population. On both coasts heavy dews fall at night, but at higher elevations, at and above three thousand feet, the dews are slight, and “the nights as dry as the day.” The result is that these regions look arid and burned, and are never clothed with the bounteous vegetation which, in spite of its drawbacks of climate, give such a charm to the lowlands and coast regions of the isthmus. The rainy season is usually from May to December, and is disagreeable enough. It does not rain in the tropics—it pours. A shower does not usually last more than half an hour, but it falls so briskly that in that period the earth is covered with water. Then the torrent ceases as abruptly as it began—“the sky as suddenly recovers its serenity, the sun comes out unclouded, dispersing the humidity, and in a brief space

the earth becomes, to all appearance, as dry as if no rain had fallen." The elevated plateaux have a climate of their own. On most of these rain falls in small quantities every month; but during the dry season the showers are slight, while during the wet one they are long and heavy. Continuous rains, or *temporales*, as they are called, are here unknown. Johnson has calculated that the average amount of rain which falls in the tropics is 113 inches per annum. In some parts of Brazil it is 276 inches, and in Guadalupe and a few of the Lesser Antilles as high as 292 inches. On the other hand, taking Honduras as a type, 48 inches fall on an average annually, while between Lake Nicaragua and the Pacific there falls—according to a return before me—97.7 in one year. The mean maximum heat of the interior may be about 68° Fahr., and that of the coast 82°, though in many places—at Omoa, for example—it runs much higher. The north coast and the Mosquito Shore are perhaps the most insalubrious places, while, as we have already remarked, the Pacific coast is much more healthy. The Isthmus of Panama has a climate a good deal worse than any of the localities north or south of it, and as Central America is, unfortunately for its good name, familiarly associated with Panama, sweltering Colon, that home of intermittent fever, Chagres, or still worse with Portobelo, it may be well to point out that this portion of the region we are describing is exceptionally hot, owing to its low elevation. No doubt, take it all in all, Panama thoroughly deserves its infamous reputation. The heat is great, moist, and enervating. It takes the colour out of the ladies' cheeks, makes the most energetic of Britons languid, and in time destroys appetite, health, and temper. Passengers cross the isthmus as if they were passing through a plague-infected city. In these lovely tropical forests through which the railway runs they seem afraid to breathe. In Panama they have more cause for dread, and once out into the Bay, and past the Pearl Islands of the buccaneers, they heave a sigh of congratulation that now they are out of danger. In reality, there is very little danger to the passing traveller if he takes ordinary care, and even the resident does not lose his health under several years. "It is," writes a resident, "the fashion to report the climate of Panama as a fiery burning furnace, and pestilential. I would not call it either the one or the other. In our house (it was a cool one) the thermometer ranged from 78° to 84° Fahr. I never knew it higher. I have even known the temperature to fall as low as 72°, and after a good spell of Panama we felt that cool. The dry season, commencing nominally in December and lasting until April, is the healthiest, and the first part of it the pleasantest. In December and January the intense heat has not set in; only in the morning, until the Norther, as it is called, begins, the warmth is oppressive. By 5 P.M. it is becoming cool, and through the night the fine fresh wind is delightfully refreshing. I have always found March and April most trying; then the heat is felt sensibly, and the effects are very debilitating. The rainy season is, up to a certain time, merely showery uncertain weather, and thunder and lightning vivid enough may be seen and heard every night. Later, there are terrific storms, sharp, short, and angry, and such crashes of thunder that the old crazy town seems falling in one mighty smash, succeeded by tropical rains in vast sheets, as if heaven opened to pour forth its seas upon the earth." The city of Panama is really more healthy than most places under the tropics; but the Atlantic coast, low and swampy as it is for a considerable distance from the

sea, is extremely pestilent. Miasmatic fevers and bowel complaints prevail, and yellow fever is not uncommon, though in most cases it has been introduced from St. Thomas, Havannah, and New Orleans, and rarely spreads among the natives or old acclimatised foreign residents. Light kinds of intermittent fevers are, however, common, and are extremely injurious to foreign constitutions in combination with the debilitating effects of a tropical climate, though it only takes root after a certain term of residence.* Panama is hot—decidedly hot. Yet new-comers do not feel it very much. They have before reaching so far got somewhat accustomed to the tropics, and so far from complaining of the intense heat of the isthmus, they are rather astonished that the “place” has been so maligned. If the visitor escapes the initiatory fever he will get along very well for the first few months, and may possibly find the weather no hotter than that which he has experienced in London, Paris, or New York in July or August. But by-and-by he feels less inclined to go about. He may mount his horse for exercise, or go around the walls of the city to catch the sea breeze at night, but he would much rather lie in an uneasy half-boiled sleep in his hammock. His digestion gets out of order; and in time he is disgusted to find that he is quite as indolent as the shopkeepers and other residents whose *dolce far niente* life so stirred his astonishment and contempt when he first arrived. “He sits,” observes our late Consul in this city of evil odour, “in his shop, with his feet cocked upon the back of a chair, like a true Yankee, and he will hardly take the trouble to rise when his customers go in to buy; indeed, he seems generally most happy if he can say he has not the article asked for.” Women do not thrive on the isthmus. They always look as if they were in a rapid consumption—lean, sallow, and seldom in good health. The children thrive better, but they also are pale from the effects of the heat. There is little temptation to take exercise, and no winter to brace up a constitution enfeebled by the summer. Hence they languish, lose strength, grow old before their time, and yet rarely die much before the allotted span of life has expired. After a few years’ residence, Mr. Bidwell has most truthfully observed, that what is generally experienced is a sort of lassitude, with a disinclination for exercise, and a derangement more or less of the digestive organs, which, added to the monotonous life of the ordinary dweller in these dead-alive tropical regions, has a most depressing effect on the nervous system. Mr. Anthony Trollope has most thoroughly expressed this feeling when he remarks that the heat made him uncomfortable, but never made him ill. “I lost all pleasure in eating, and indeed in everything else. I used to feel a craving for my food, but no appetite when it came. I was lethargic, as though from repletion, when I did eat, and always glad when my watch would allow me to go to bed; but I was never ill.” The longer one stays, the more thoroughly does he experience this feeling. He cannot labour hard, for in a few minutes he streams with perspiration, which may be healthy, but is decidedly exhausting and uncomfortable. He dare not walk about much in the sun for fear of sunstroke, and all the ills that the sun brings to mortals in its favourite land. There is no twilight here; the sun rises at once, and sets as suddenly, while a bad road through a tropical forest is neither a desirable nor a safe place for promenading on a dark night. He can read, if

* Commercial Reports received at the Foreign Office from her Majesty’s Consuls, 1863.

the mosquitoes will allow him, but as he generally begins the day half tired, after a feverish broken sleep stewing in a hammock, or in a close tent-like mosquito-curtained bed, the chances are that the liveliest volume would send the reader asleep. I do not think that I ever saw any one reading in Panama, unless, perhaps, it was the *Star and Herald*, and then most frequently the student of that not very absorbing record of current news was half asleep, and, if even awake, never by any chance excited. An Irishman once expressed an opinion to the Consul regarding the climate of Panama, which is perhaps unscientific to the last degree, and very Milesian, but yet exceedingly truthful. "It is never at any season of the year cooler in Panama: it may in some months be hotter than in others, but



VIEW OF GATUN VILLAGE, CHAGRES RIVER, PANAMA.

never by any chance cooler," even though the excessive heat of the day is tempered by the morning and evening breeze.

ROADS—THAT ARE: CANALS—TO BE.

Roads throughout Central America, except a little way out of the larger towns, there are none. They are mere tracks, more or less worn and trodden by continual use in irregular directions, and making their way in the course in which they meet the fewest obstacles, regardless of the fact that it may be the longest and most inconvenient. In the dry season these trails are not good; when converted by the tropical rains into ruts full of pasty clay they are all but impassable. Art had no share in forming them, and accordingly the States through which they pass seem to consider it unnecessary to apply any art to keep them in repair. Wheeled carriages are necessarily uncommon, all transit being by mules or horses, but more especially mules. From San Juan del Sur to Virgin Bay on the Lake of Nicaragua there was, when I crossed over it in 1866, a tolerably good road, but as that route across the continent has been long

abandoned, most likely it has fast got overgrown with tropical herbage, and is once more a track through a tropical forest, and the quiet little villages by the way again sunk into their pristine state of somnolent inactivity. A railroad—the only one in the region—crosses the Isthmus of Panama from the city of Panama, on the Pacific, to Colon, or Aspinwall, on the Atlantic, a distance of 47½ miles, of which line, and the people who live on its borders, I may have something to say further on. It was constructed at great cost of treasure and lives, and is kept up at very considerable expense. It is usually said that a man a sleeper was the expenditure of human life. But this is only a broad generalisation, for there were never as many men as there are now sleepers employed in its construction from first to last; but this we shall discuss by-and-by. Several other railway routes have been projected, particularly across Nicaragua, Honduras, and Tehuantepec. But they have never gone further than mere talk, the financial slough of despond in which Central America is always sunk, and the utterly unstable character of their government preventing anything like an approach to serious work. Indeed, for some time past the project of a canal has been more canvassed than that of a second railway. The Panama one supplies all that is necessary in that direction, and indeed all that the traffic will support. A short route through the isthmus would, however, be an engineering triumph, and revolutionise commerce to even a greater extent than the canal now in operation through the Isthmus of Suez. Eventually it will be made, and the nation that secures it will be mistress of the isthmus, and eventually of a great portion of the trade of the world. As very imperfect and often erroneous ideas prevail on the subject, at the instance of various correspondents, I propose to devote some space to a consideration of the various routes which have been proposed, taking as the basis of my observations a recent report of Admiral Amman, of the United States Navy.* I do this the more readily as a consideration of the routes crystallises, as it were, into a short space the generalised ideas of the elevation and general orography of the isthmus.

For the last five years, and especially the last two, the American newspapers have been filled with voluminous letters from Central America, written by correspondents accompanying some one or other of the Government exploring expeditions surveying the Panama region. By these means high hopes of success in digging a practicable canal across the isthmus have been from time to time excited; for the heralds of every surveying party that has gone out have announced grand assurances of success then and there. Those who are looking with most hopes to this highway of traffic do so because they believe that a canal there is of vital importance to trade, both domestic and European. They reckon—on the data of 1870, that is—that the trade of the United States with the west coasts of Mexico, Central and South America, Hawaii, California, British and Dutch Indies, China, and Japan, amounts to fully 1,000,000 tons; that of Great Britain in the same regions to over 1,600,000 tons; and that of France and Germany to some 300,000 tons. That is, they reckon on about 3,000,000 tonnage annually, as soon as a

* Not having access to the Report itself, I have compiled the account which follows from various articles in American and English journals, and more particularly from the letter of a New York correspondent of the *Standard*.

ship canal shall be opened across Darien; and that new channels of trade and production would be developed by the current flowing through the grand thoroughfare.

Not only the United States, but also the English and French Governments, and private parties in England, France, and America are agitating on this question. But the enterprise is yet far from completion. In January, 1875, the Nicaraguan Minister to Great Britain, and the Consul-General of Nicaragua in France, addressed a communication to M. de Lesseps asking his interest in the Darien Canal, and tendering assurances of "the surest and most constant protection" to the enterprise by the President of the Republic of Nicaragua; and the hero of the Suez Canal replied encouragingly. He had already submitted to the Government of the United States his views on "the best solution of the problem of an interoceanic canal without weirs by the alimention of the two seas, the same as nature and art have permitted to do for the Isthmus of Suez; but," he added, "in the impossibility to obtain such a result in one of the American isthmuses, I consider the project of the canal of Nicaragua is that which offers the greatest facility of execution and the greatest security as to the result." This appears to have been the initiation of the latest French movement. The agitation for a canal dates beyond the administration of Mr. Jefferson, who directed attention to it very early in the century. In 1835, again, an elaborate report on the subject was submitted to the House of Representatives.*

In 1854, and subsequently, Great Britain and France both made important explorations in regard to the canal;† but it was not until 1870 that the American Government undertook some important surveys, which we may now glance at. Without stopping to detail the results of an instrumental examination of what is known as the Truando route, made in 1856 and 1857 by Lieutenants Michler and Craven, who reckoned a tunnel of 12,250 feet necessary, and estimated the cost of the canal at 134,000,000 dollars, we come down to 1870. There have been ten since the beginning of that year.

Yet all this work has given us no final result. M. de Lesseps last year saw, and Commodore Amman this year does not disguise the fact, that nothing positive has been accomplished, although several negatives have been well established; the data on hand are insufficient; and those which are available are flagrantly contradictory. The routes thus far in some way surveyed, explored, reconnoitred, or examined, are eleven, and may be briefly summarised as follows:—

(1.) The Tehuantepec. This route, commencing at the River Coatzacoalcos in the Atlantic would require a canal of 144 miles, with 140 locks, and is considered the worst of all the practicable routes. Yet it has ever been a favourite one with the Spaniards, who have more than once surveyed it, and estimated the lowest cost of construction at £3,400,000. But this was Don José De Garay's estimate in 1842, and since that date the expense of such work must have nearly doubled—even in Central America. The project of cutting such a canal

* A full survey of all the projects may be found in a supplement by Professor Nourse, of the National Observatory at Washington, added to the Senate documents published in 1875, by Commanders Lull, Crossman, and others, documents illustrated with twenty large maps. The supplement is valuable as giving full lists of authorities on the subject.

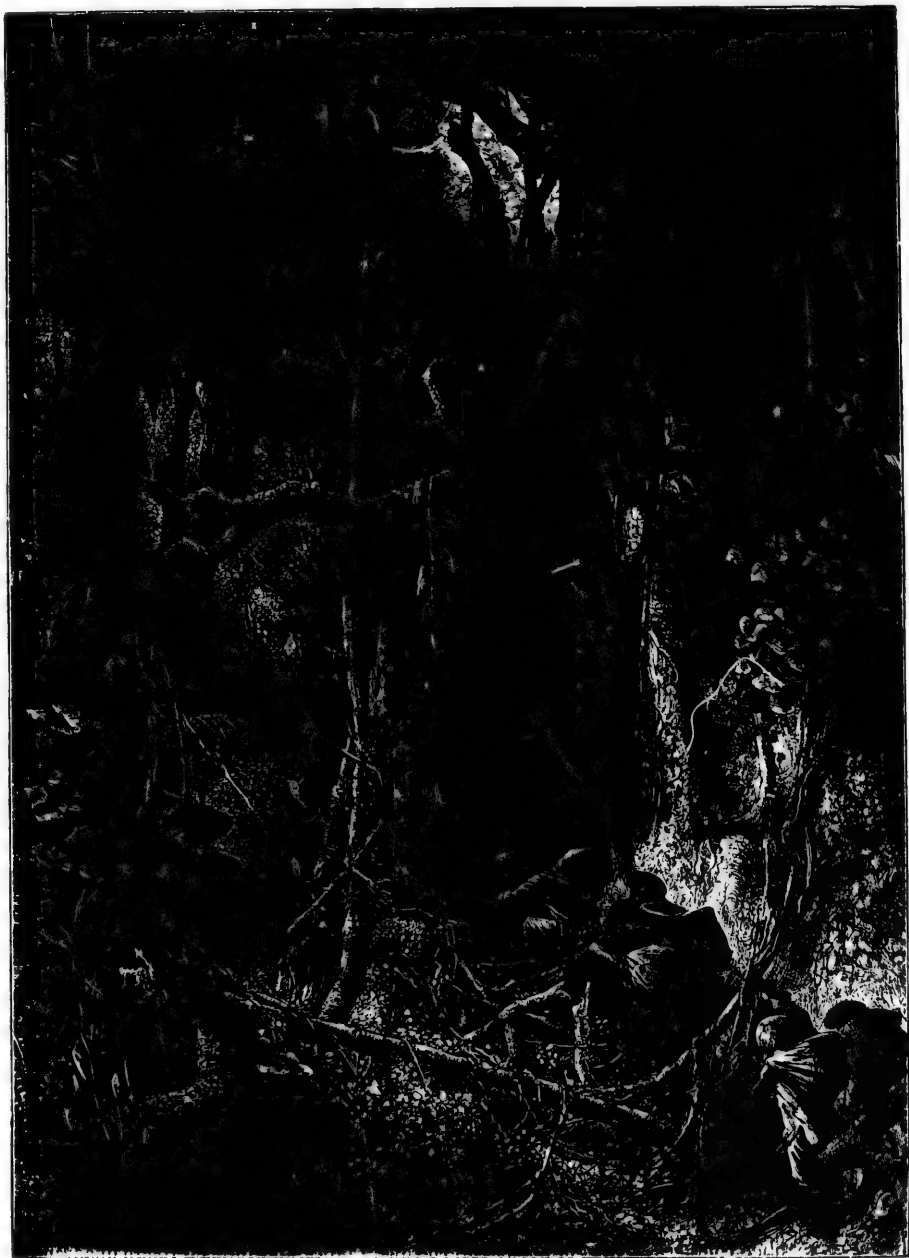
† By Lloyd, Garella, Gisborne, Prevost, Belli, Wheelwright, Hellert, Bailly, Pim, Depuydt, and many others.

from sea to sea was probably first mooted by Saavedra, the kinsman and companion of Hernando Cortes, the conqueror of Mexico, and so strongly did Cortes believe in the project that he is said to have selected land in the neighbourhood of the proposed route as his portion of the country which he had conquered. (2.) The Nicaragua. This is the route of which the fullest reports have been published, and is, after all, the best one. Commodore Amman describes it as having "a summit of 107·6 feet; length of canal requiring excavation 61·75 English miles; slack water navigation, by means of dams in the bed of the San Juan river, from the mouth of the San Carlos to Lake Nicaragua, a distance of 63 miles; lake navigation for 56·5 miles to Virgin Bay, and thence *via* the valleys of the Rio del Medio and Rio Grande to Brito." The route requires four dams, having an average height of 29·5 feet, and an aggregate length of 1,320 yards, and of twenty locks of an average lift of 10·28 feet. It has also been proposed to avoid the San Juan altogether, and intersect the forest country straight from the lake on to Blewfields, the capital of the Mosquito territory.* This was also the route which the late Emperor Napoleon III., even when a prisoner in Ham, in 1840, advocated, and that on which, seven years later, he published a pamphlet. The great attraction of the route is the Lake of Nicaragua, ninety-five miles long, and at its broadest thirty-five miles, with an average depth of fifteen fathoms. The lake is navigable for ships of the highest class down to the point where the San Juan flows out of it; and, independently of the aid which the presence of the lake would give this great stretch of water, affording access to towns north and south of it, would be an irresistible recommendation for its utilisation. (3.) The Panama. This is just now, as the Nicaragua was formerly, the favourite route with the United States Government. There are, however, various rival lines across the isthmus. For instance, Louis Philippe's administration advocated a route from the little Bay of Vaca del Monte, near Panama, to Limon Bay, on the Atlantic. There is also a short route from Chiriqui Lagoon, a fine Atlantic harbour, to the mouth of the David river, which is nevertheless impracticable on account of the want of a harbour at the latter point. (4.) The route from San Blas to Chepo was long a favourite, mainly because the distance to be cut through was but thirty miles. But this route has been now almost definitely abandoned, it being seen that it is impracticable even with a tunnel of eight miles. (5.) Humboldt's great name has been used in advocacy of the true line for a canal, being from Caledonia Bay to the Gulf of San Miguel, or else to go further east, and connect the rivers Atrato and San Juan of Grenada. The Caledonia route from the bay of that name to the Monte and Sucubte rivers is still unsettled. The greatest elevation from the southern end of the bay is 1,259 feet, and from the northern end 1,148 feet. No elevation under 1,000 feet was discovered. (6.) The Depuydt route was first examined by a French gentlemen of that name. At the distance of thirty miles he reached an elevation 638 feet, and the divide of water still ahead of him. The salient point in this route was that the Atrato river was to be connected with the Teyter by way of the Tanela river.† (7.) The Atrato-Tuyra. This is the route over which there has been so much wrangling between the French and American surveyors. Hellert, La Charme, and Gorgorza appear to have made this, or nearly this, the line of their surveys, if surveys they should be called. Captain Selfridge in 1871 found two crossings of the divide, one 712 feet and the other about

* Pim: "The Gate of the Pacific," &c.

† Depuydt: *Journal of the Royal Geographical Society*, Vol. XXXVIII. (1868), p. 69.

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EXPLORING A TROPICAL FOREST.

400 feet high; but Gorgorza denies that Selfridge was on the same route. The latter's exploration was sufficient to prove that this is an exceedingly difficult, if not an impracticable, line, on account of high hills on the Pacific side and extensive swamps on the Atlantic side. The regular line is by way of the Atrato and the Perauchita rivers on the east, and of the Tuyra and the Cué rivers on the west. Some years ago it was estimated that a canal by this route would cost £30,000,000. (8.) The Truando route we need only mention in order to say that it was pronounced impracticable more than twenty years ago, and this verdict has never been reversed. (9.) The Atrato-Napipi route and (10) the Gorgorza we know little about, though the first has been twice surveyed, and if M. Gorgorza is right that his line of travel was different from Mr. Selfridge's, then the former gentleman must be credited with having explored, chiefly from the deck of a French steamer, a route that nobody has been so fortunate as yet to strike again. (11.) The last route which I shall refer to is the one surveyed by Lieutenant Wyse for the Colombian Government. His report just reaches me as I write. He proposes to cut across the Isthmus of Darien by way of the Tuyra river, which flows into the Gulf of San Miguel. Two routes were suggested by the expedition; one by way of the Paya river (a tributary of the Tuyra) and the Caquirri, where the watershed between the two streams is only 250 yards long, but its height is 150 yards above low water. The other route Lieutenant Wyse considers more practicable. It lies more to the north, along the valley of the Tupisa, and the furthest point reached by the expedition was thirty-four yards above sea-level, and much closer to the Atlantic than any place of corresponding height on the alternative route. This route is in some respects similar to the various Atrato ones already described, though it differs in part of the proposed course being entirely new. With ordinary energy and perseverance the construction of a canal across Nicaraguan or Colombian territory may be looked upon as a certainty.

CHAPTER II.

CENTRAL AMERICA: ITS POLITICAL DIVISIONS.

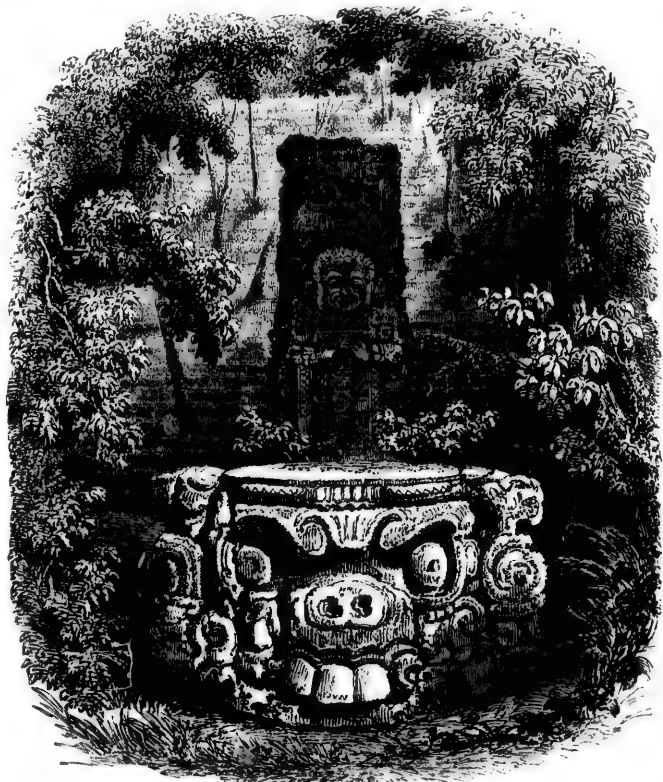
WHEN the Central American States broke loose from Spain, they wisely formed themselves into a federal union of five States, each having an executive Government, a Legislative Assembly, elected at intervals, and a constitution peculiar to itself for its internal management. This nation was ruled by a President, a Senate, and a Federal Congress, and so continued from 1821 to 1839. But in that year, after many bickerings, the Republic of Central America broke up into its component elements. "A change was supposed necessary," as one of their historians naively remarks, and so the union was dissolved, and notwithstanding various attempts to again reconstitute it, so continues at the date of writing, the five republics being practically the five Provinces or Intendencias of the Captain-Generalcy or Kingdom of Guatemala, viz., Guatemala, Honduras, San Salvador, Nicaragua, and Costa Rica.

GUATEMALA.

This republic contains an area of about 40,776 square miles, and forms a rough quadrangle. Most of the surface is mountainous, the main chain of mountains, already referred to (p. 3),

known as the Sierra Madre, sending off several branches in the direction of the Atlantic, thus enclosing several valleys, but few plains of any extent. Along the principal range (which rises to a height of 13,000 feet), or in spurs closely connected with it, are several rather remarkable summits, termed in the language of the country volcanos, or volcanoes; only two of them, however, namely, those called De Fuego and Atitlan, giving any signs of activity. Many streams water the State, one of which, the Motagua, is navigable for a considerable distance. During the rainy season it carries a great volume of water to the sea, but in the dry months, according to Bailly, it may be forded in almost every part, that is, for forty-five or sixty miles above its mouth; from Gualan downwards it runs through lands almost uninhabited, and for this distance—ninety miles—it is navigable for small decked boats. The Polochic is another river of much the same nature; it may be navigated by boats to about ninety miles from the city of Guatemala. Both the rivers could be improved, but in the present state of affairs this prospect is rather hopeless. Of the lakes, that of the Gulf of Dolce, Lake Peten—on an island in which the town of Flores stands—the Lake of Atitlan, and the Lake of Amatitan. Guatemala, Solola, Quesaltenango, Old Guatemala, Totonicapan, Salama, and Chiquimula are the capitals of the seven departments or corregimientos into which the republic is divided. But there are a number of other considerable villages, towns, or cities, as they would be called. In 1872—the last census—the total population was returned at 1,190,754, of whom 360,608 were classed as whites, and 830,146 as Indians. The army comprises 3,200 regular soldiers, and 13,000 militia. Its estimated revenue was, in 1875, £517,605, and its estimated expenditure in the same year £556,223; its public debt was at the same date £2,450,000, and at this time we may safely calculate that it is not less, the moral from all of which is that Guatemala is in a financially unwholesome condition. In 1873 the total value of the exports, chiefly sugar, coffee, cochineal, mahogany, sarsaparilla, tobacco, and fruits, was given at £672,612, while the imports are rated at £472,853. There are no railways in the State, and the latest returns mention that twenty-three ships, in addition to several monthly steamers, entered in twelve months at San José. Everywhere in Guatemala, and, indeed, throughout Central America, there are evident signs of tremendous earthquakes having taken place. Long, deep perpendicular rents occur at frequent intervals traversing the plains for several miles in length, and often, according to a recent traveller, Captain Lindesay Brine, exceeding 1,500 feet in depth. There are also occasionally to be met with large, deep, natural pits, not dissimilar to the south of Western America, or the depressions which made their appearance in the State of Missouri, particularly in the neighbourhood of St. Louis, after the earthquake at New Madrid in 1812. Earthquakes are, however, becoming less frequent, and since 1773, when the ancient city of Guatemala was destroyed, there has been no serious shock. There is a singular circumstance connected with an earlier destruction of this city which has never been properly explained, though so curious that it deserves notice. The ancient capital was situated between two large volcanoes, one was known as Volcan de Agua (or water), the other, which we have already mentioned, as the Volcan de Fuego (or fire). The former, about 14,000 feet high, was supposed to be extinct; the latter which is above 15,000 feet high, was then, as now, occasionally active. In September, 1541, the Volcan de Fuego showed signs of activity, but though the inhabitants were apprehensive of the safety of their houses, yet nothing unusual was expected, and there was no immediate

loss of life. But in the middle of the night of the 11th the extinct Volcan de Agua began to give signs of being in labour, and suddenly there poured down from the summit, or upper slopes of the mountain, a vast torrent of water, which, rushing down with irresistible velocity, swept the greater part of the city into utter ruin, and drowned thousands of the inhabitants. The most probable explanation of this catastrophe is, that a small lake or a considerable



ANCIENT IDOL AND ALTAR AT COPAN, GUATEMALA.

volume of water had been lying dormant in the crater, and that this became suddenly thrown out by some subterranean action of upheaval.*

Travelling from the Pacific seaport of San José for thirty miles after quitting the coast, the road leads through dense forests of tropical vegetation peculiar to the low-lying *Tierras Calientes*, or hot lands, as the country between the Cordilleras and the sea is called. We then ascend and finally enter the city of Guatemala, which is built on a broad table-land 4,000 feet above the sea, and seventy miles from the coast. No longer is the vegetation so profuse

* Brine: *Journal of the Royal Geographical Society*, Vol. XLII., p. 357.

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as on the lowlands. The people have also changed. On the lowlands the Sambos, or mixture between the negro and Indian, prevail. They are physically strong though morally weak, and have all the African's love of ease and heat, both of which requisites can be found among the palms and plantains where they elect to build their frail, airy dwellings. Yet the two most remarkable men which Central America has produced since the revolution, namely, President Carrera and Serapio Cruz, have both belonged to these generally despised mongrels. On the eastern slopes of the Cordilleras the inhabitants are usually pure Indians,



VIEW OF THE VALLEY OF THE POLOCHIC, DEPARTMENT (OR CORREGIMIENTO) OF VERA-PAZ, GUATEMALA.

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but not invariably of the aboriginal stock, many of them being descendants of the Aztec and Tlaxcalan Mexican Indians (Vol. II., p. 235), whom the Spanish generals brought as allies on their invading excursions. "It is only in the interior," writes Captain Brine, "in the secluded valleys among the mountains, and in the districts adjacent to the ancient ruined cities, that the descendants of the original Toltecian race are to be found: and these can be traced partly by language, partly from a peculiar type of features, but chiefly by the wonderful persistency with which they retain certain ancient superstitions and certain household usages; there is quite sufficient evidence to enable it to be clearly assumed that the descendants of those advanced races which built the fortresses and mounds of the interior are still existing in their neighbourhood." These ruined cities we may speak of by-and-by.

The soil in Guatemala is as fertile as it is all through these favoured lands of the sun, and its varied climate allows of an immense variety of products being grown. Maize, wheat, rice, tropical fruits, legumes, all European garden plants, cacao, sugar, tobacco, coffee, cotton, and the mulberry on which the silk-worm feeds may be classed among the common products of the country. Were the Indian better acquainted with horticulture he might bring many of the plants to an enviable state of perfection. About the coast towns the description of the negro gardens in Jamaica might apply, the plants and other surroundings being similar. "Outside," writes the author whom I have already quoted (Vol. II., p. 310), "animal refuse is stored in some hollow where liquid permanently rests, as likely as not to the windward of the dwelling. The site is probably a hole in the ground, not unfrequently a swamp several feet below the adjoining road. The wretched hovel is crowded with males and females of all ages, not to speak of pigs, fowls, goats, and dogs; and as the sexes have no means of separation, the social consequences may be easily imagined. The only labour which is cheerfully performed by the negro is that which he bestows on his own 'provision-ground.' Of these 'grounds' each negro has at least one, varying in extent from half an acre to two or three acres. Out of this he supports himself and his family, pays his taxes, and obtains his food. Like the 'plant-a-cruive' of the Shetland peasant, the negro's ground is often at some distance from his home. It is often some piece of waste or 'ruinate' land, which he leases from year to year from a neighbouring proprietor. A provision-ground in full cultivation—'when it a-bloom,' as the negroes call it—is a very picturesque sight indeed. Within a roughly-made bamboo or timber fence rise long rows of yams, twining their graceful leaves round poles eight, ten, and twelve feet high. Between these spring lines of Indian corn (maize) and broad-leaved cocoas (*Cocolabia esculenta*, a coarse yam), and the ochro (*Hibiscus esculentus*) with its delicate yellow flower. Pumpkins trail along the ground. Knubbly cabbages raise their bullet heads. Pears and pulse of all kinds, the 'Red Miss Kelly,' and the 'Black Betty,' the 'Cockle's Increase,' and 'Sorrow for Poor,' crowd up all the available space. Clustering over an old orange-tree, which in process of time it will utterly destroy, is a handsome cho-cho vine (*Sechium edule*), whose pear-like fruit is one of the most useful vegetables of the tropics; and in one corner is a little patch of cassava (*Jatropha manihot*), from which the negro gets his starch, his tapioca, and his bread, and from whose poisonous root is extracted the well-known cassarep, the foundation of all our sauces." And to this close by may be the palmetto palm, with which the negroes thatch their huts, and the leaves of which they also use as parasols on their journeys. The higher districts will also be sure to have the mountain cabbage (*Areca oleracea*), a graceful palm often 150 feet high. Its bud is perhaps one of the most delicate vegetables of the tropics, though the taking of the "cabbage" kills the tree. The roads in the same districts will be bordered with fences of the Barbadoes Pride (*Poinciana pulcherrima*)—the "doodle-doo" of the negroes—while over its pea-covered stems twines the liquorice vine (*Abrus precatorius*), the scarlet and black spotted seeds of which (John Crow or Jumby beads) are well known in Europe as the beads of necklaces. Here also trails the Circassian bean (*Andenantha pavonina*), whose seeds East Indian jewellers use as weights, the Jerusalem thorn, and the sea-side grape tree (*Coccoloba uvifera*), the wood of which is well suited for wood engraving, while the fruit makes even better tarts. In the highlands—say

among the Manchester mountains—as, indeed, almost everywhere, the humming-birds flit about among the trumpet-shaped flowers of the *Portlandia*, the scarlet blossoms of the shoe-black flower (*Hibiscus*), or the full clusters of the lilacs. Rich orchids scent the air, chief among which is the Holy Ghost plant, with its white petals covering the snowy dove within. The wax plant trails over window-frames, the spider orchid over the guava trees, and the honeysuckle on the pillars of the piazza. Jessamines and frangipanes perfume every room, and the most common bouquet is formed of stephanotis and heliotropes, of gigantic lilies, lovely to look on and pleasant to scent, of clove-scented carnations, and Martinique roses. In the garden may be seen loquat and bread-fruit trees, and the magenta blossoms of the Tahiti apple (*Spondias dulcis*), while close by are the handsome star-apple trees (*Chrysophyllum Cainito*), with their quivering leaves, green on the upper, bronze on the lower surface, justifying the cynical negro proverb, which declares that a woman is “deceitful, like a star-apple leaf.” The famous avocado, or alligator pear (*Persea gratissima*), is sure to be seen. It is eaten with salt fish, and is an excellent substitute for butter.* An irascible old planter was on the point of dismissing his bookkeeper because during the pear season he ate butter with his bread. “For a man who can do that,” he growled, “upon the wages I give him, cannot possibly be honest.” The negro watches the progress of his ‘provisions’ with a careful eye through all their various stages of ‘growth’ (sprouting), ‘blossoming,’ ‘fitting,’ ‘fitness,’ and ‘ripeness.’ Still we are afraid that much of his labour in his field consists of lying under a tree with a ‘junky’ (cutty) pipe in his mouth, indulging in Turk-like *keyf*, and dreamily gloating over his rising crops. The food of the negro chiefly consists of ‘bread-kind’ and ‘salt provisions.’ The former embraces yams, plantains, bananas, cocoas, bread-fruit, and sweet potatoes; the latter includes salt pork, salt cod, ling, herring, and mackerel; vegetables are chiefly used as ingredients in a pepper-pot. Stewed cat is considered a dainty dish among these woolly-headed epicures. The labourers on the sugar estates, both coolie and creole, hunt and eat the large rats which infest the cane-fields,” and parrots are also largely consumed by the negroes, who say they resemble pigeons in flavour.

In Guatemala, as in all Spanish-American countries, owing to the original conditions of the settlement (Vol. II., p. 280), private individuals often hold great tracts of land; still there is much unoccupied ground in the *tierras valdías*, so called, which is, however, for the most part utterly waste, a condition in which—so far as cultivation goes—much of the appropriated land is. The sparseness of the population (scarcely twenty-four to the square mile) is no doubt one of the causes of this, but the great fertility of the soil, and the consequent inducement to indolence and idleness, without any neutralising stimulus to ambition and industry, are also to be blamed for much of the backward state of this, as of all tropical countries. Spanish-American countries also seem unfortunate in attracting little or no immigration. But in reality this is greatly owing to the jealousy of foreigners, which has grown up in all the old Spanish colonies from the time when, by the old Royal laws, no strangers were permitted to trade with the

* Hence it is also sometimes called vegetable marrow, or midshipman's butter. It is a species of the Laurel order (*Lauraceæ*), and the tree, of which it is the fruit, grows, as a rule, to the height of twenty or thirty feet.

Indies. Indeed, it seems characteristic of these countries that when they gained their freedom, they retained, as a result of the narrow-minded short-sighted prejudices among which they had grown up, some of the worst features of the former *régime*. Want of public spirit and ignorance of the elementary laws of political economy pervade every department of the Central American governments: it is no use particularising one over the other—they are all much about the same. The cochineal insect was introduced in Guatemala in 1811, and its nurture and collection now form one of the chief industries of the country. It is fed upon the “nopal” (*Opuntia Tuna*, as well as *Nopalea coccinellifera*), which grows to perfection in the volcanic country, where the soil is so dry and unstable that volcanic matter and sheets of hot water exist at a depth below the surface so small that in some places a temperature of 212° Fahr. is realised by digging down only a few feet. Jets of steam are constantly issuing from these furnaces, and become visible after sunset, filling the valley with smoke. Such a valley is that of Amatitlan, west of Guatemala, which constitutes the centre of the cochineal cultivation. There the insects feed on the cactus, and soon grows fat. They are then swept off into trays, and thrown on hot plates, the newly hatched young being, however, preserved for the next crop. The insect thus artificially shrivelled up is then put into water, and gives out the well-known cochineal dye of commerce. *Cereus Dyckii* (Plate XXI.) flourishes equally well, and in some places forms extensive thickets.

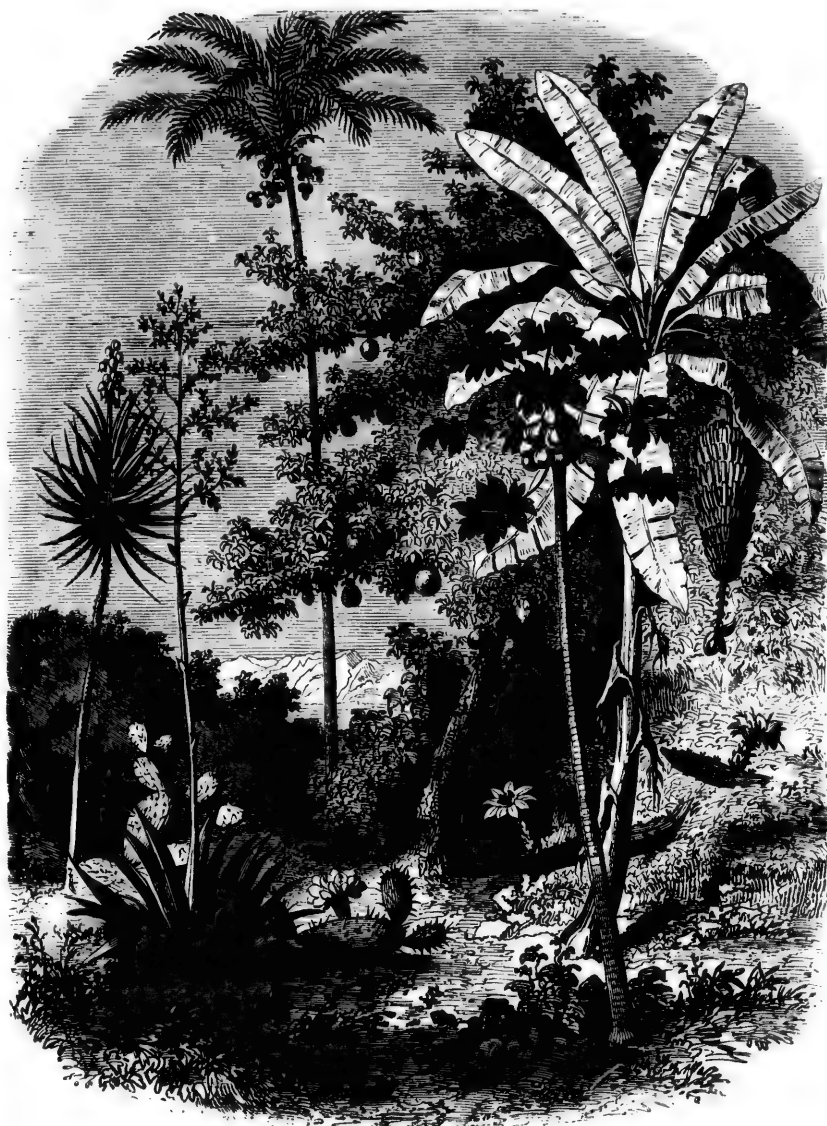
It is, however, in the *tierra templada*—the high alluvial plains—that the Guatemalan is seen to best advantage. As the lagoons, savannas, and great forests of the low hot lands disappear, the atmosphere, as M. Morelet remarks, becomes fresh and pure, the population more compact, the ties which bind society together more numerous, and man appears to have recovered in a large degree the energy and activity of other regions. He there displays greater industry, more forethought, and is less averse to labour. “His domain is more extended than in higher and in lower grounds, his efforts better appreciated, and he no longer sustains an unequal contest with Nature, but subdues and binds her to his will.” In this part of the country, also, venomous reptiles are rarer than in the low land, where they are by no means uncommon. The poisonous *Trigonocephalus* is one of the most dangerous of snakes, while the boa, though not venomous, is yet dreaded for its strength and activity. The rattle-snake (*Crotalus horridus*) is also common in dry ground, though it is not regarded with anything like the horror which attaches to the perfectly harmless, though hideous gecko (*Gymnondactylus scapularis*), which basks on sunny walls, and is universally believed to inflict a bite which is incurable!

In the cool region are found the most beautiful flowers, which scent the air with their odour. Here flourish the amaryllis, the helianthus, the wood-sorrel, the Indian pinks, endless varieties of penstemons and tree ferns, while the clematis and ipomæa festoon the wood, and the glycine enlaces the wayside trees. A plain on which the village of Taltick is built is so cool that the inhabitants style it a *tierra helada*, or frozen land. In December there is often hoar frost, and even now and then a slight fall of snow. Yet here also the banana flourishes, a sure sign that the temperature does not as a rule fall very low.

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A VIEW ON THE SPANISH MAIN.

The modern city of Guatemala is situated in the centre of a plain which abounds with earthworks and tumuli, the work of a people of former times. New Guatemala is,

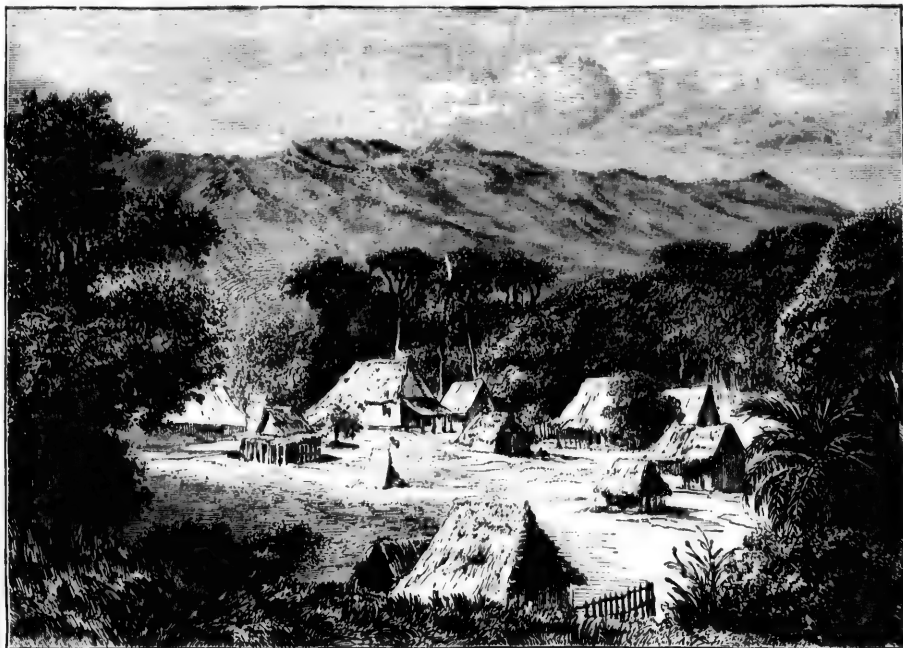
however, removed thirty miles from the volcanoes, though Antiqua Guatemala—the old capital—still stands, but its cathedral and houses are rent by the earthquakes which have visited them. Most of the inhabitants are of mixed descent, though there are a few descendants of the old Spanish families, and a small European Society, formed by the diplomatic corps, and the coffee planters and their agents. The Indians are, however, the hewers of wood and drawers of tobacco. In early morning they may be seen thronging the roads, carrying great burdens by means of bonds or straps passed round their foreheads. In the days before the Conquest there were no beasts of burden; hence all loads had to be carried in this manner. Yet, though there is now an abundance of mules in the country, such is the force of habit that the Indians never use them, but bear their burdens, as did their fathers, on their own backs. Contrary, also, to what obtains among the Northern Indians, the women only carry water and grind the corn, the men doing all the hard toil. The capital of Guatemala—the city of the same name, the *Quatemala* of the Indians—is not an inviting place of residence. It is poor, and the people are unsympathising and suspicious of all who appear inclined to share their very moderate wealth. As the houses are low, the traveller who approaches it sees from a distance only a “monotonous succession of roofs, relieved here and there by the domes and clock towers of the churches. An air of solitude and abandonment pervades its environs; there are no gardens, no plantations, no country houses, nor any of those industrial establishments which throng the approaches to our capitals. The houses of the suburbs are mere huts, covered with thatch, and separated from each other by hedges or open spaces of ground. Proceeding further, the traveller finds broad streets all laid out with the severest regularity, which prevails equally in the architecture of the houses. As a precaution against earthquakes, their height is limited to twenty feet, and they are therefore reduced to a single ground floor. Their fronts are without ornament, but sometimes are bordered by a narrow side walk, which gives a momentary relief to the pedestrian from the detestable pavement of the streets, composed of stones, rough, angular, and badly laid down.” Like all Spanish towns it is crowded with churches, including a cathedral, which might at one time have been rather imposing, but has now fallen much from its ancient grandeur. It contains some rather well-executed wooden statues of saints, and some indifferent paintings, for in the old Spanish days the patronage of the Government maintained here a school of artists devoted to ecclesiastical works of this description. Nowadays, from want of patrons, this secluded school has died away, and even the goldsmith’s art, for which Guatemala was once celebrated, has sunk to the lowest ebb. The church contains—or did contain—a large tasteful lamp of silver, but the other sacred vessels, and the six great golden candlesticks—each upwards of three feet in height—have long ago disappeared. Four were stolen by a private individual, whose sacrilegious name is unknown, and the other two were melted down by the State under the excuse of “public necessity.” The cemetery of Guatemala is like that of most Spanish countries. The dead are “buried”—if the phrase may be used—in niches in the high walls of the cemetery. In these compartments the coffins are placed, and the mouths plastered up, a black lozenge being painted on the outside for the reception of any inscription, so that, it has been remarked, the wall resembles the display of multitudinous packs of cards. At the end of every ten years the fosse

for the common dead is cleared out for the reception of new occupants, and the bones are piled up in pyramids in the corner of this hideous golgotha. The only feature at all pleasant about Spanish burying-grounds is that children are interred with music, the relatives, whatever may be their real feelings, always affecting to feel glad that the little one has so soon gone to rest. Yet Guatemala is a gloomy town, and one in which the stranger, by every account, speedily gets overpowered by *ennui* of the most consuming description. The people go early to bed, and get up late; by 8 P.M. the streets seem deserted, and the traffic—such as it is—is not resumed much before 10 next day. In the interval the sleepy *serenos* (Vol. II., p. 293) have it all their own way; but even these incompetent watchmen are an institution of comparatively recent times, previous to which the streets after dark were safe neither for life nor limb. Of course there is a plaza, and in the plaza there is a market, this market, or rather the collection of Indians who frequent it, being really the most interesting sight in the whole city. M. Morelet's description of the scene is so graphic, that as a condensed view of Guatemalan life I may extract it:—"The market is well supplied with vegetables, collected, it is true, from places not distant, yet possessing different climates, and the fruits of Europe, few in number, and of inferior quality, are confounded with those of America to such a degree, indeed, that the vendors themselves are ignorant of their origin. Scattered at intervals are little shops, where the Indians gather to obtain a cheap meal. They first lay in a stock of *tortillas*, which are sold separately, and then hand in their porringer or calabash to be filled. For a *cuartillo* (three cents) they are furnished with a thick red soup called *pulique*, composed of maize, pepper, and fragments of *tortillas*. Nothing can be less tempting than this national dish; indeed, the general manner of serving repasts in these Indian restaurants is revolting in the extreme. Overtaken one day by a heavy shower, which obliged me to seek shelter under one of the galleries of the plaza, I employed the leisure moments in watching the economy of these establishments. The one nearest me was kept by an old mulatress, squatting like a monkey beside a furnace which supported three earthen jars. When a customer presented himself, she drew from a basket near by a large plantain leaf, plunged her wrinkled hand into one of the earthen vessels, and took out a quantity of the steaming contents, which she spread over the leaf, then she added a layer of beans, and finally the same hand, still dripping, disappeared in the third jar, and came out of a charming orange colour, for it now contained the *pulique*, and which gives to the customer's dish the culminating touch of perfection. Here and there huge parasols, covered with palm leaves, shade the booths, where are sold syrup, *tiste*, and other refreshing or tonic beverages. In the distance those naked, copper-coloured men, who are seated on the church steps, apart from the movements and seductions of the place, are the Indians of the *tierras calientes*, resembling a flock of migratory birds. They are resting themselves, while making their simple breakfast on an ear of maize. This group, close at hand, is made up of Sambos, a strange type of men, of whom we have already spoken, and who are easily recognised by their sooty colour, their brilliant eyes, and their crispy hair. They are bloodthirsty in disposition, and wholly destitute of honour, morality, or principle. The inhabitants of Palin and Jocotenango are easily distinguished by their white cotton drawers, which do not reach the knee, a peculiar costume, derived by their ancestors from

the conquerors, to whom it was probably transmitted by the Moors. Here lounge the *ladinos*, under the shadow of the arcades, veritable *lazzaroni*, regaling themselves with boxes of sweetmeats. They have finished their day's labour, and are rapidly consuming its products; nor will they return to work until driven to it by necessity. And, lastly, those men with round jackets, who so carefully close their shops and barricade them within; they are the true citizens of the place, and the rustic simplicity of their customs and manners is not to be mistaken as belonging to the republican character, for they are full of aristocratic vanity, and feel deeply wounded if, when addressed, the title which they have seen fit to prefix to their name is omitted." If we are to take our opinions from M. Morelet, and he understood the country and its inhabitants better than some modern travellers, the Guatemalians are not a pleasant people. The women have little education, and feeling their deficiency, generally avoid the society of European ladies; the men are selfish, intensely suspicious, bound up in their petty interests and monastic squabbles, and though like all the Spanish race, full of high-flown compliments, and ever begging that the stranger will consider their honour, credit, and fortunes at their disposal, would be rather sulky if their offers were taken to mean more than a glass of water, or at most a cigar. Once the priests ruled all in Guatemala, but though they still maintain a considerable hold on the State, their power has been gradually decreasing, until by the last constitution of the State they are prohibited from taking any active part in the government. The people, in a word, do not live, they vegetate. Morality is at a low stand, as might be expected in a country where for three hundred years the highest offices of State were put up to auction, where money was all in all, and merit nowhere, where the custom-house officers can to this day be "arranged" with, where the judges sold and still sell judgments, but not justice, and where the clergy by their greed and immorality bring religion into contempt. Guatemala is yet, as ever it was, the prey of rufianly politicians, the most terrible of whom was Rafael Carrera, whom I have already referred to (p. 17), a Sambo, sprung from the lowest depth, fierce, cunning, unscrupulous, but yet a master of all the men who demeaned themselves before him, and endeavoured to make him their tool. The terrible condition of the country may be inferred from the fact that from 1812 to 1842 no less than fifty-two battles were fought in Guatemala, while the aggregates for all the five States of the Confederation during that period were 143 battles—none of them very bloody, it may be allowed—but in the warfare of Central American politics probably more men have fallen by assassination and by military and political executions than in the field, where the dead during the period mentioned numbered 7,088, and the wounded 1,785. All over Guatemala are numerous ruined "cities," the work of the ancient Indians before they sank into their present condition by the oppression and barbarism of the conquerors. These cities, now lying hidden in jungles, seem at one time to have been densely peopled. A powerful priesthood occupied the numerous temples, a fixed and mild form of government was established, the people were employed in agriculture or State labour, methods of symbolic language were in course of construction and improvement, and hieroglyphics were in use to express astronomical data, and the principal meteorological and political events. It is probable that the architects of the mounds of the Mississippi and Ohio Valleys were of the same race as those who reared the mounds now found

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in Guatemala, many of the articles found there being identical with those disinterred from similar mounds or refuse heaps in North America. It is curious that these ruined cities of Central America should be found only in a limited area, and should be evidently the work of one particular and exceptionally civilized race of Indians. None exist in South America, and none in that part of the Continent commonly called North America. They all lie within the tropics between the 12th and 22nd parallels of north latitude and are chiefly adjacent to the Mexican and Honduras Gulfs, or in the plains on the



VIEW OF THE VILLAGE OF PANSOS, GUATEMALA.

east of the Cordilleras of Central America. On the western or Pacific slopes and plateaux, within the same parallels are also remains of ancient fortifications and sacrificial altars, but these are of a less elaborate type, and are allied to the Aztec structure of Mexico. The arrival of the Spaniards destroyed for ever the chance of the race who built these cities of Central America and the corresponding structures in Mexico from ever becoming one of the influential and civilized nations of the world.* Some of these structures are engraved on p. 6, and Vol. II., p. 267.

* Brine: "The Ruined Cities of Central America." *Journal of the Royal Geographical Society*, Vol. XLII., p. 355, Bernuilli; Petermann's "Geographical Mittheilungen," 1868-69, and 1873; "Reports of Embassy and Legation," 1871 and 1875; "Consular Reports," 1873; and the works of Del, Waldeck, and Stephens already referred to.

BELIZE.

Belize, Balize, or British Honduras, is a colony of Great Britain, formed of the south-eastern portion of the Peninsula of Yucatan, and may be described as that portion of Guatemala bordering the shores of the Bay of Honduras. Its area is about 13,500 square miles, and its population in 1870 was 24,710 (12,603 males and 12,107 females), of whom only 377 were whites. The country is generally flat and swampy on the coast, as is most of the neighbouring regions, but towards the interior it rises gradually, the elevation culminating in the table-lands of Guatemala already described. The southern portion is composed of savannas or prairies covered with pines, while the banks of the rivers, such as the Rio Hondo, Blue, and the River Siboon—the first two of which-named streams form its northern boundary, and the last one its southern—and the Belize River are covered with mahogany and logwood. Indeed, it was this fine timber which originally attracted adventurers to this colony from Jamaica, soon after it was discovered by Columbus. The presence of the English was long regarded with extreme jealousy by the Spaniards, and though in 1670 our territorial rights were partially acknowledged, yet it was not until 1786 that a formal grant of the settlement was obtained from His Most Catholic Majesty. The population is confined chiefly to the towns and the mahogany cutting establishments on the rivers; one half live in the capital, Belize, a town of 6,614 inhabitants, situated at the mouth of the river of the same name, which is navigable for 200 miles from its mouth. The forests contain cedar, rosewood, pine, and other good timber, the india-rubber, and the sarsaparilla, agave, indigo, &c., while along the coast the cocoa-nut and other tropical trees and shrubs flourish. The valleys and plains yield abundant crops of sugar-cane and other tropical products, but the great staple of British Honduras is the mahogany tree (*Swietenia mahogani*), whose vast size and magnificent foliage justly entitle it to be called the king of the forest. It is very slow in growth, hardly undergoing a perceptible increase during the lifetime of a man; hence its extreme firmness. It has been calculated, according to Mr. Squier, that it requires 300 years to attain to a proper growth for cutting. So large does it sometimes become, that the lower section of a tree, 17 feet long, has been known to "square" 5 feet 6 inches, equal to 550 cubic feet, and a weight of seventeen tons. The camps for cutting the mahogany trees are situated as near as possible to the rivers, and like the logging camps of North America (Vol. I., p. 256) are necessarily temporary, being shifted according to the abundance or scarcity of the trees to be chopped down, and floated to the receiving, marking, and shipping establishments near the mouths of the rivers. The pursuit of the mahogany chopper is a wild but a systematic one. Having fixed on a "location," he brings to the spot a store of provisions, and makes arrangements for securing and embarking the wood on its voyage seaward. Here he keeps a little fleet of *pitpans*, or canoes, for carrying supplies, and keeping up relations with the "works" proper. Sometimes he is forced to go back a considerable distance from the banks, and then, as in the forests of the north, oxen are used to "truck" the wood to the river. The "camp" is then fixed, a hut, composed of a hammock swung between two posts, and protected from sun and rain by a thatch of palm leaves, forming a house sufficient for the purpose. The mahogany season lasts from August to April,

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as the wood when cut during these months is not so apt to "check" in seasoning, or split in falling, as during the rest of the year, or what is known as "the spring." The labourers work in gangs of twenty or fifty each, under the direction of a captain, who assigns to them their daily tasks, and adds to or deducts from their wages in proportion as they accomplish what is considered a fair day's work or not. To each gang is attached a "hunter," whose business it is to search for proper trees to cut, and as his work involves greater intelligence and activity than the others, he is paid higher wages. With his machette he cuts his way through the dense forest, until he comes to some elevated situation, when he climbs the highest tree, and minutely surveys the surrounding country. "At this season of the year (August)," writes an eye-witness, "the leaves of the mahogany tree are invariably of a yellowish-reddish hue, and an eye accustomed to this kind of exercise can, at a great distance, discern the places where the wood is most abundant. He now descends, and to such places his steps are at once directed, and, without compass or other guide than what observation has imprinted on his recollection, he never fails to reach the exact spot at which he aims. On some occasions no ordinary stratagem is necessary to be resorted to by the huntsman to prevent others from availing themselves of the advantage of his discoveries; for if his steps be traced by those who may be engaged in the same pursuit, which is a very common thing, all his ingenuity must be executed to beguile them from the true track. In this, however, he is not always successful, being followed by those who are entirely aware of all the arts he may use, and whose eyes are so quick that the slightest turning of a leaf or the faintest impression of the foot is unerringly perceived. Even the dried leaves which may be strewed upon the ground often help to conduct to the secret spot; and it consequently happens that persons so engaged must frequently undergo the disappointment of finding an advantage they had promised to themselves seized on by others. The hidden treasure being, however, discovered, the next operation is the felling of a sufficient number of trees to employ the gang during the season. The tree is commonly cut about ten or twelve feet from the ground, a stage being erected for the axeman employed in levelling it. This, to an observer, would appear a labour of much danger, but an accident rarely happens to the people engaged in it. The trunk of the tree, from the dimensions of the wood it furnishes, is deemed most valuable; but for purposes of an ornamental kind, the limbs or branches are generally preferred, their grain being much closer, and the veins richer and more variegated." The next operation is "trucking" the trees cut, but this, as well as the operation of making graded roads, is much the same as that already described in the account of lumbering operations in the north (Vol. I., p. 259), with the exception that instead of the trees being simply dragged along the ground, they are borne on a sort of truck or low carriage, to keep them from rolling off which is the chief reason for them being square. In performing this work, many valuable trees—such as iron-wood, bullet-tree, red-wood, sapodilla, &c., have to be destroyed, or are thrown away as useless, unless they happen to be near a stream or glen, in which case they are employed in building bridges. The roads being usually finished by the month of December, the trees are sawn into conveniently-sized logs, squared, unless they are small, and dragged to the river side. To again quote from the author on whom we have already drawn—"the season may be

termed the mahogany cutter's harvest, as the result of his season's work depends upon a continuance of the dry weather, for a single shower of rain would materially injure his roads. The number of trucks worked is proportioned to the strength of the gang, and the distance generally from six to ten miles. We will, for example, take a gang of forty men, capable of working six trucks, each of which requires seven pair of oxen and two drivers, sixteen to cut food for the cattle, and twelve to load or put the logs on the carriages, which latter usually take up a temporary residence somewhere near the main body of the wood, it being too far to go and return each day to the river side or chief establishment. From the intense heat of the sun the cattle would be unable to work during its influence; consequently, they are obliged to use the night time in lieu of the day, the sultry effects of which it becomes requisite to avoid. The loaders, as before mentioned, being now at their stations in the forest, the trucks set off from the *embarcadero* at about six in the evening, and arrive at their different places of loading about eleven or twelve o'clock at night; the loaders, being at the time asleep, are warned of the approach of the trucks by the cracking of the whips carried by the cattle-drivers, which are heard at a considerable distance. They arise, and commence placing the logs on the trucks, which is done by means of a temporary platform laid from the edge of the truck to a sufficient distance from the ground, so as to make an inclined plane, upon which the log is gradually pushed up from each end alternately. Having completed their work of loading all the trucks, which may be done in three hours, they again retire to rest till about nine o'clock next morning. The drivers now set out on their return, but their progress is considerably retarded by the lading, and although well provided with torchlight, they are frequently impeded by small stumps that remain in the road, and which would be easily avoided in daylight. They are, however, in general all at the river by eleven o'clock next morning, when, after throwing their logs into the river, having previously marked them on each end with the owner's initials, the cattle are fed, the drivers retiring to rest until about sunset, when they feed the cattle a second time, and yoke in again. Nothing can present a more extraordinary appearance than this process of trucking or drawing down the mahogany to the river. The six trucks will occupy an extent of road a quarter of a mile. The number of oxen, the drivers half naked (clothes being inconvenient from the heat of the weather and clouds of dust), and each bearing a torchlight, the wildness of the forest scenery, the rattling of the chains, the sound of the whip echoing through the woods: then all is activity and exertion, so ill-corresponding with the silent hour of midnight, making it wear more the appearance of some theatrical exhibition than what it really is, the pursuit of industry which has fallen to the lot of the Honduras wood-cutter. About the end of May the periodical rains again commence. The torrents of water discharged from the clouds are so great as to render the roads impassable in the course of a few hours, when all trucking ceases, the cattle are turned into the pasture, and the trucks, gear, tools, &c., are housed. The rain now pours down incessantly till about the middle of June, when the rivers swell to an immense height. The logs then float down a distance of 200 miles, being followed by the gangs in pitpans (a kind of flat-bottomed canoe), to disengage them from the branches of the overhanging trees, until they are stopped by a boom placed in some situation convenient to the mouth of the river. Each gang then separates its own

cuttings by the marks on the end of the logs, and forms them into large rafts, in which state they are brought down to the wharves of the proprietors, when they are taken out of the water and undergo a second process of the axe to make the surface smooth. The ends, which frequently get split and rent by the force of the current, are also sawed off, when they are ready for shipping.* The wages of the men engaged in this business in both British Honduras and the republic of the same name are about the same. The quotations of pay stand as follows:—A captain receives from £6 to £8 per month, and the men



BRITISH BARRACKS AT ORANGE WALK, BELIZE.

£3, £2 8s., and £2, according to their rank. The "hunter" for the gang has £3 per month, or more frequently he is paid at from half-a-dollar to a dollar for each tree he finds, according to its size and value. The men are supplied with tools and rations, or receive their wages in goods and money. In Belize most of the cutters are negroes, descendants of the former slaves employed in the colony, but in Honduras they are chiefly Caribs, many of whom go to Belize to hire themselves for the season, returning to their homes at the close. They meet with ready employment, as they are said to excel the negro in activity and strength, and hence make better workmen. The mahogany trade is increasing, nor, for the present, at least, is there any danger of the supply failing, though, owing to the reckless felling without proper supervision or replanting, the cutters have to go further and further every

* Quoted by Squier: "Honduras, Descriptive, Historical, and Statistical" (1870), p. 135.

year from the great rivers, and by-and-by will have to contend with the difficulties of floating the logs down shallow or broken rivers, and embarking them on an unprotected shore.

In 1875 Belize exported to Great Britain £227,896 worth of products (including 2,800 tons weight of sugar), fustic, dyewoods of many kinds, and, of course, mahogany, cedar, and sarsaparilla. Imports from the United Kingdom were in the same year £125,308, the annual revenue £40,231, the expenditure £36,613, and as the debt in 1877 was only £5,040, the colony may be said to be solvent and even prosperous in its own quiet tropical sort of way.* It differs from most colonies whose acquaintance we have made or may have yet to make, in so far that it issues no imaginative yellow-covered pamphlet to tout its glories, and keeps in England no agent-general whose duties were long ago described in Talleyrand's definition of an ambassador. It does not profess to have "the finest climate in the world," and though the Belisians would be more than mortal if they did not claim for their colony the merit of having "boundless riches," they are not particularly anxious for any more immigrants to share them.

SAN SALVADOR.

This is the smallest in size, but in point of population the second largest of the republics which came into existence on the dissolution of the Central American Confederation in 1839, though previous to 1853 it was in federal union with Honduras and Nicaragua, and has not unfrequently since been at war with both. It is difficult to be certain at the present moment what is its particular form of government, since for years past "pronunciamientos" have taken the place of any regular presidential election, and a sort of militarily controlled anarchy prevails. It is about 180 miles in length, by about 40 in breadth, and contains an area of 9,594 square miles, with a population estimated at 600,000, mostly aborigines or mixed races, as the pure whites do not number more than 10,000. Several mountain spurs break San Salvador into a number of inland valleys and a low rich belt along the coast. The Central range, or Cordilleras, possesses sixteen volcanic peaks, ranging in height from 4,000 to 7,386 feet. There are also numerous lakes, one of which—Guija—is nearly ninety miles in circumference, and abounds in fish. Five or six miles to the eastward of the city of San Salvador is the lake of Ylopango, about nine miles in length, and averaging three miles in breadth. Mr. Baily describes the ground on the north and south sides as very steep and rugged, while on the eastern and western extremities it is nearly level with the surface of the water. No stream of any consequence falls into it, and its only outlet is the Desaguadero, which flows through a deep, dark, and almost unapproachable ravine, until it empties itself into the Jiboa. The inhabitants believe that the lake is unfathomable. The water when taken up is beautifully pellucid, but it is not accounted wholesome; when ruffled it assumes that colour which the Salvadorians call *verde de perico* (parrot-green), and exhales a powerful, disagreeable, sulphurous odour, which becomes more intense as the wind increases in strength. When the upper stratum of the water is thus moved, fish are taken in great quantities; at other times, when the lake is still, few can be caught. These fish,

* Statistical abstracts from the several colonial and other possessions of the United Kingdom in each year from 1861 to 1875 (Parliamentary Reports, 1877).

though of indifferent quality, are much esteemed by the inhabitants of San Salvador, owing to their having little acquaintance with any other kinds. This sulphury character of the lake, as well as the numerous mineral springs and other similar subterranean phenomena, are doubtless owing to the intensely volcanic character of the country. The soil is very fertile, but though the people of San Salvador are more addicted to agriculture than most of those of the neighbouring republics, much of the country still lies waste, and pastoral pursuits find little favour. Indigo, sugar, maize, cotton, and coffee are the chief crops. Along the coast, from Acajutla to La Libertad, the world-famous balsam of Peru, or St. Salvador balsam, is collected in such quantities that the country is known as *Costa del Balsamo*. The annual export averages from 17,600 lbs. to 22,000 lbs. It is almost entirely collected by the Indians, who are the chief inhabitants of the districts, and hold no intercourse with the rest of the country except that which is absolutely necessary for carrying on their peculiar trade. Each individual or family collects independently of the others, and, accordingly, the balsam is bought in small quantities by the persons who purchase it for exportation. The trees yielding this commodity are very numerous in this part of the country, and though other regions have the same kind of soil and climate, they do not seem to be favoured with the presence of *Myroxylon Pereira*. The balsam is collected by being absorbed as it exudes, in pieces of cotton rags inserted in the incisions made for the purpose. These, when thoroughly saturated, are replaced by others, which, as they are removed, are thrown into boiling water. The heat detaches the balsam, which floats, and is skinned off and preserved in calabashes. The wood of the tree is close grained, beautifully veined, nearly of a mahogany colour, and retains its fragrance for a long time. It would then be valuable for cabinet work, but it is rarely to be had, as the trees are never felled until, either through age or decay, they have ceased to yield the resins which gave them their original value. The association of the name of the resin with Peru is due to the fact that in former times, owing to the commercial regulations then existing in Spanish America, the product was sent to Callao, and thence shipped to Spain, leading to the belief in Europe that it was a product of South America; and the few who knew the contrary did not care to enlighten the rest of the world. Though there is no great mineral wealth in San Salvador, yet at Tabanco there are rich veins of silver, and in the west, near Santa Anna, mines of iron. The fine indigo—known in “the trade” as “Guatemala indigo”—is the most valuable staple of the country. The estimated revenue for 1876 was £447,723, and the estimated expenditure £430,663. At present the debt is unknown. In 1875 it was said to exceed £872,645, but as there is also a floating debt of an unknown amount, it is impossible to rightly estimate the indebtedness of the Republic, though, if put at £1,300,000, San Salvador will not be wronged. In 1874, its imports were estimated at £373,818, its exports at £721,005.* The capital is San Salvador, a town of 16,000 inhabitants, which has been frequently destroyed by earthquakes, the last time in 1854, when it contained 30,000 people. Most of the new dwellings were accordingly rebuilt after this catastrophe at Nueva San

* “Parliamentary Reports of Embassy and Legation,” 1869, 1871, and 1873. Laferrière: “De Paris a Guatemala” (1877); Marr: “Reise nach Central Amerika” (1863), &c.

Salvador, not far off, though without gaining much, as in March, 1873, this new capital was also partially destroyed by a series of earthquakes, ended by a simultaneous eruption of the Yzalco volcano. Its trade is now reviving, and is carried on chiefly through La Libertad—the principal port in the republic—which is distant about sixteen miles from the town. In the days before the Conquest, San Salvador was called *Cuscatlan*—"the land of riches"—and was the best peopled and most civilised of all the American countries



VIEW OF BAY ISLANDS, HONDURAS.

which had come under the control of the Aztec religion. Conquered by Pedro de Alvarado, one of the companions of Cortes, it became one of the richest portions of the kingdom of Guatemala, until, in 1821, it threw off the Spanish yoke, and joined Mexico. In 1823 it, however, seceded from that republic, and formed the Central American Confederation, in which all of the five confederates were so uncomfortable, that they broke asunder in 1839. Since then it has frequently been at war with its old confederates.

HONDURAS.

This republic contains about 39,600 square miles, and is generally mountainous, though containing much good agricultural land. Its mineral wealth is, however, its great resource. Gold, silver, copper, iron, cinnabar, zinc, antimony, tin, platinum, opal, amethysts, asbestos, chalk, limestone, marble, and coal are enumerated among its riches, while the soil produces

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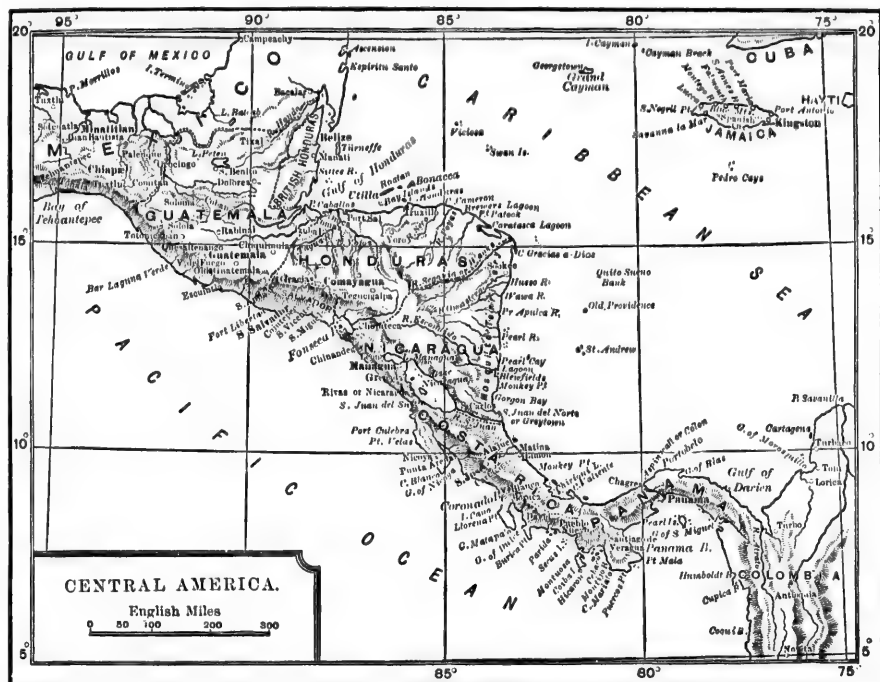
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VIEW OF THE CITY OF PANAMA.

mahogany, and other fine timber trees, cotton, sugar, coffee, tobacco, and the usual tropical crops. What the revenue is does not appear, civil war, wars with Guatemala and San Salvador, general anarchy and unconscionable speculation having produced something approaching to chaos. The national income is believed to be about £97,000, but the expenditure has for several years past exceeded this. At the end of 1876, the foreign debt amounted to something like £5,990,108 contracted for an interoceanic railway, of which only about fifty-three



MAP OF CENTRAL AMERICA.

miles on the Atlantic side were completed, and are now abandoned, the whole affair being little better than a swindle. In truth, if Honduras ever attempted to pay the interest on its debt—which it does not, and it is not likely ever will—it would amount to an annual charge of £695,700, or more than seven times the total receipts which the Government can in any way calculate upon! But it is unnecessary reopening these old tales: the “Interoceanic Ship Railway Canal” is a sore subject with the British capitalist, and Honduras a State very prominent in the “Report of the Foreign Loans Committee” of the House of Commons (1875).

The inhabitants of Honduras number about 351,700, but there has been no regular survey of the country or census of the people, so that the figures given are mere estimates.

There are not many Europeans, or people of European descent, the greater number of the "citizens" being either Indians or mixed breeds. Some of the towns, like Santa Rosa, in the tobacco districts, are almost entirely inhabited by whites. The capital—Comayagua—(formerly called Valladolid) an ancient town of 7,000 or 8,000 inhabitants, is figured on p. 37. It was founded in 1540 by Alonzo Caceres, in obedience to instructions to find "an eligible situation for a city midway between the oceans." Previous to 1827, it had 18,000 inhabitants, but in that year it was taken and burnt by the monarchial faction in Guatemala—for Central America has even had yearnings after a king—and has never since recovered the shock. It has a languid university and a cathedral, built and decorated after the questionable tasteful style of Spanish ecclesiastical edifices. The city stands in the middle of a great plain, 2,000 feet above the sea-level, a site which seems, from the remains of towns, fortifications, and similar creations to have been a favourite one with the ancient inhabitants of Honduras. Its exports, which are chiefly mahogany, hides, tobacco, cattle, and indigo, are estimated to be worth on an average £200,000 per annum, while the imports, viz.—cotton goods, silk, hardware, &c.—cannot be stated with anything like accuracy, the customs of the different ports being farmed out to private individuals, whose interest it is to blindfold the Government and the public generally concerning the trade of the country and their corresponding profits.* The climate varies with the changing elevation, and exposure to the trade and other winds. At the highest elevation oaks and pines and wheat-fields flourish, and in others—as in the plain of Comayagua—the palm and the pine flourish side by side. The climate, even on the coast, is not hotter than, as Mr. Squier points out, New York during the warmest months of the year. Yellow fever is unknown in the interior or on the Pacific coast. The average range of the thermometer is on the coast about 75° Fahr.; in the interior, at an elevation of 300 feet, 65°, and there are points where snow has been known to fall in light showers.

NICARAGUA.†

The area of this republic, including the Mosquito Territory, is estimated at 58,170 square miles, and the population at 350,000; but this is mere guess, as there are no proper census returns to go upon. The only statistical fact we are perfectly sure about in regard to Nicaragua is its debt, which was contracted in this country. This, at the end of 1874—when the lenders repented them of the error of their ways, and buttoned up their pockets—was estimated at £1,900,000. The revenue in the same year was about £119,020, and the expenditure £151,710, an unhealthy financial condition, which has become chronic in the State, deficits having been the invariable rule since 1865. The number of people of pure European blood in Nicaragua is small, most of the inhabitants being Indians, Mulattoes, Negroes, and the other mongrel broods who swarm over Central

* Annual statement of the trade of the United Kingdom in the year 1876 ("Parliamentary Report"). Pelletier: "Honduras et ses ports" (1869; Reichardt: "Centro-America" (1851), and the works of Squier, Fröbel, Scherzer, Marr, and others.

† Belt: "The Naturalist in Nicaragua;" Seaman and Pim: "Dottings by the Way;" Scherzer: "Nicaragua;" Squier: "Nicaragua: its People, Scenery, Monuments, &c.;" Bülow: "Der Freistaat Nicaragua in Mittelamerika;" Keller: "Le Canal de Nicaragua;" "Reports of Embassy and Legation," 1869; "Consular Reports," 1876 and 1877.

America. These mixed races are on the increase, while the whites are decreasing, with a result which cannot but be a drawback to the development of a country peculiarly favourably situated for commerce. Indeed, in this respect, it has a superiority over all the other Central American States, the San Juan River (p. 40) and the Lake of Nicaragua almost cutting the isthmus, which separates the Atlantic from the Pacific, in two. The country is, however, but thinly peopled, the density of population being but seven to the square mile, and even that scarcely expresses the real state of matters, for most of the inhabitants are collected in the various little towns of the Pacific coast, and between it and the Lakes Nicaragua and Managua, from Realejo to the town of Nicaragua. But from the latter point to the boundary of Costa Rica the country is almost destitute of population. The region on the borders of Honduras, and eastward of the lakes, is dotted with a few towns, or rather villages, but these districts are in general very thinly peopled. The old capital was Leon (25,000 inhabitants), ten miles from the Pacific, but it is surrounded by five volcanoes, and the ruins in which it lies abundantly testify to the iconoclastic habits of these dangerously active neighbours, as well as to the revolutionary tendencies of the inhabitants. The present capital, Managua—a town of about 10,000 inhabitants—is situated on the southern border of the Lake Managua, but as it is built on the slope of an active volcano, it can only be looked upon as a town existing by the sufferance of the Nicaraguan Enceladi. The country is varied in its features. Mr. Bailly, who thoroughly examined it, described the territory from Realejo, southward and westward—a few leagues from the ocean—as broken up by a range of hills, nowhere of great elevation until they approach the confines of Costa Rica, when they rise into mountains ranging in height from 5,000 to 11,000 feet. Between this ridge and the lakes the country is moderately level, and not much broken, but along the borders of Honduras it is intersected by several lofty ridges running in various directions. In the intervening valleys flow many rivers, the largest of which are the Segovia, or Escondido, which falls into Blewfields Bay; but none of them are navigable in a commercial sense. There are several volcanoes, all near the sea, and standing alone, or only slightly connected with the main ridge, though they are nearly all in the direction of it. Of these Mombacho, nearly 4,500 feet, Ometepe, 5,100 feet, and Momotomba, of about the same elevation. The climate, like that of Central America generally, is best in the interior, and worst on the coast, the Bay of Conchagua and the banks of the San Juan River being, perhaps, the most unhealthy part of the country. The soil is fertile, but only a small portion of the land can be said to be either improved or made any use of. Cattle rearing after a rough fashion is the chief occupation of the inhabitants, the district of Chontales, on the eastern side of the lakes, especially affording an excellent pasturage for even greater herds than it now supports. Indigo, mahogany, cedar, logwood, Brazil wood, Nicaragua wood, and hides are the chief exports, though sugar, coffee, cocon, and tobacco are among its products. Maize, rice, beans, and plantains are produced in great abundance, and supply the chief food of the people. Wheat is grown in small quantities in the cooler parts; fruits are plentiful, especially oranges, pineapples, guavas, breadfruit, and times of fine quality, while the mulberry grows remarkably well. Silver, copper, iron, lead, and gold—especially in the Chontales region, where it is mined to a considerable amount—exist. But the natural

feature which gives Nicaragua a superiority over her sister republics, is the presence of the great Lakes of Nicaragua and Managua, emptied by the San Juan River, at the mouth of which, on the Atlantic coast, is Greytown, or San Juan del Norte, or de Nicaragua. At one time, in the palmy days of the Empire of the Indies, the Spanish war ships used to regularly sail up the river, and across the lake to the town of Granada. Now a shallow canoe, steered or paddled by dexterous Caribs, can "hardly clear on the crest of a wave without touching the bar, and light river steamers with stern wheels can scarcely grope their way from rapid to rapid, where rocky bottoms strewn with boulders, and whose rapidly flowing current effectually bar their further progress." * Indeed, there seems to exist conclusive evidence that some centuries ago the sea covered the entire space now occupied by the mouths and swampy deltas of the San Juan, in the vicinity of Greytown. Every year it becomes more and more evident that the water in the river is decreasing, while the banks of the lake are undoubtedly rising. Even the least observant of the natives of the country, Mr. Collinson informs us, will tell how the River Panaloya, or Tipitapa, connecting Managua and Nicaragua Lakes, is becoming drier every season, so much so that at times lately no water communication has existed between them. This fact—for fact it is—is in no way remarkable, when we remember that these lakes are in the middle of the great volcanic range bisecting the isthmus, and that the gradual upheaval of the country year by year increases the gradients of the rivers, and by creating a more rapid flow of water, causes the perceptible drainage of the lakes and lowers the level of the waters; the rivers in their turn form deltas, and silt up the estuary of the San Juan. Formerly, Mr. Collinson thinks, the river must have flowed out calmly almost on a level from lake to ocean, while now the turbid waters, hurrying down with ever-increasing velocity, carry with them the *débris* disturbed by the floods of the rainy season, till suddenly they find a level bed; and the violence of the denser sea-water with the frequent violent "northers" (Vol. II., p. 143) of these latitudes blowing full upon them, they are arrested in their course, and deposit the suspended material, a deposition which it is known is always hastened when the fresh water holding the mud and sand in suspension mingles with salt, or other water of a different specific gravity. The total length of the San Juan is about 70 miles, and its breadth varies from 100 to 300 and 400 yards. Its banks are densely wooded, swampy, and malarious. With the exception of a fort or two, and a few Indian huts at the Rapids, there are no inhabitants from the lake to Greytown, the only living thing being the paroquets, which fly in flocks at the report of a gun, the monkeys which swing from tree to tree, the many-hued tropical birds, the endless humming insect life (Vol. I., p. 278), and the multitudes of loathsome-looking crocodiles (*Molinia Americana*) that lie sleeping under the bushes dipping into the rivers, or on the watch for the unwary traveller, who may slip a foot crossing the rude log bridges, or fallen trees, which span the "slues," or *cul-de-sacs* of the river. The forest also swarms with gallipatos—the most terrible of tropical pests—and mosquitoes, which, in this part of the world, attain a vigour which can only be matched by the clouds which make the otherwise charming rivers of North West America something to be held in

* Collinson: *Proceedings of the Royal Geographical Society*, Vol. XII., p. 37.

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VIEW OF COMAYAGUA, THE CAPITAL OF HONDURAS.

evil remembrance. From the Lake of Nicaragua to the coast in the Mosquito Territory—to which we are travelling—the country is, with a few exceptions, one dense forest. A few savannas or plains, slightly undulating, and clothed with trees, “stand up at intervals like islands in the long grass which often overtop the heads of the horsemen.” Water is scarce here in the dry season, and the traveller is often greatly distressed for the want of it, being compelled to seek for any dregs which may have been left in the pools frequented by the dantes, or tapirs (*Elasmotherium Bairdi*), and used by them alike for drinking and bathing. Indeed, were it not for the sap which runs out of the cut branches of the “Bejuca” (*Cissus hydrophora*), the sufferings of the explorer even in the woods would be intense. This great forest is composed of palms, indiarubber trees, sapodillas, cedars, groups of fine mahogany trees, “sprawling their enormous roots over acres of ground, and rearing their vast height from the jungle beneath almost, as it seemed, up to the clouds.” The guan (*Penelope*), a small species of turkey, is found not uncommonly in these woods, but with the exception of the jaguar and the wari (*Dicotyles tajacu*), there is not much game now in the country. The natives accounted for the greater scarcity of game now than formerly in this manner:—“Two years ago (1865) a terrific hurricane similar to the one which, in 1867, devastated St. Thomas and Tortola, swept over the country, utterly destroying Blewfields, and laying low vast tracts of the forest. The wild animals and birds were destroyed by myriads, and sought refuge in the very roads and houses of the little clearings on the coast of the ocean and lake, where they were killed by the inhabitants. Since then hunting has become a profitless employment; but the jaguars, too hardy and cunning to be destroyed by the same means as the other game, have grown bolder and more ferocious, attacking men whenever they meet them, and even taking the town of Blewfields by storm.”* The country is generally flat, only a few ridges here and there, but of low elevation, intervening between the lake and the Atlantic. The soupap, or peach palm (*Guilielma speciosa*), is found in the forest, though it is more familiar as one of the surroundings of the Indian huts, its fruit, tasting not unlike a yam, forming, when boiled, a considerable item in the food of these aborigines. The tree is about sixty feet in height, with a straight stem, covered by regular bands of long black prickles, used by the natives as needles. The eboe tree (*Dipterix eböensis*), the “nuts” of which are also eaten, appears as the Atlantic is approached, for none of them are found in the vicinity of the lakes, or on the Pacific slopes of the isthmus. As the eastern coast is neared, “the vegetation, as if by magic, changes; on the lake slope the woods are principally hard and small-leaved. Mahoganies, cedars (*Cedrela odorata*), lance wood, (*Duguetia quitarensis*), lignum vitæ (*Guaiaacum officinale*), and indiarubber (*Castilloa elastica*), are distinguishing features. The jungle is exceedingly rough, consisting in many places of miles of prickly pear (*Bromelia karatos*), bamboo with ‘bejuca’s’ vines, which tried the sharpest ‘machete’ and strongest arm to cut, while the surface of the ground, except in the bottoms of the valleys, was arid, stony, and so heated, that our feet were burnt and blistered by it; watercourses were comparatively few, and many of them dry. Such a country reminded me more and more of the Mosquito coast. The vines became green and tender;

* See “Races of Mankind,” Vol. I., p. 267.

the great coroso and cabbage palms were now mixed with the swallow tail (*Geonoma*), so useful for thatching, and the ribbon-like leaves of the *Circuligo latifolia*, while the prickly and club-rooted zanona (*Socratea*) would mingle their foliage with the lowest trees (*Hymenaea courbaril*); the entada with their mahogany seeds, and the swelling trumpet trees (*Cecropia peltata*), sarsaparilla (*Smilax medica*), and the clinging vanilla began to appear, and the invaluable silk grass (*Bromelia*) took the place of the prickly pear. Lovely tree ferns gave their incomparably delicate appearance to grace the vegetation; running streams occurred more frequently, and the ground became springy, and cool under our feet, while it acquired that rich black colour so suggestive of fertility"—and I may add of malaria. Curiously enough, in this wood it is said that the great mahogany and wild cotton-trees (*Ceiba bombox*) would often deflect the compass from the "true" as much as three degrees. Wild honey of a delicious description is often found in this jungle, though it is, with the exception of the iguana (p. 45), about the only addition to the traveller's fare which can be obtained. So dense are the forests that sunlight rarely penetrates them, and in spite of the grandeur of the vegetation, which, after a time, grows wearisomely familiar, the exhausted explorer's spirit sinks under the combined heat, disappointment, and monotony, and hails a stream flowing between banks of "scutch" grass, or the broad-leaved *Heliconia bicolor*, as a relief to those dark and ghostly forests of the sun-land. Altogether, between the Lake of Nicaragua and the Atlantic, the height of land is only a little over 619 feet above the former, the latter occupying the place of the Cordillera at that particular point.

We have now arrived at that portion of the Atlantic seaboard which is known as the Mosquito Shore, Mosquitia, or

THE MOSQUITO TERRITORY.

A few years ago this was a veritable sovereign State—a kingdom governed by an Indian monarch—but it is now merely a part of Nicaragua, though controlled to some extent by treaty obligations entered into by Great Britain and the republic. It derives its name—not as is commonly supposed from the presence of mosquitoes, for in reality these insects are not more abundant here than elsewhere, but from a cluster of small islands, or banks, situated near its coast, and called the *Mosquitos*. It was discovered in 1502 by Columbus, and though never conquered, was claimed by Spain up to the year 1600, when the king put himself under the protection of the English, and various settlements were formed in the country. Part of the region for some time figured as the territory of Poyais, and governed by a Cazique of the name of M'Gregor, who claimed to be head of the Highland clan of that name.† However, these settlements from various causes came

* Collinson: *Lit. cit.*, p. 32.

† This was, I believe, the same gentleman, who, under the name of General McGregor, made, in 1819, an ill-fated attempt to free New Grenada from the Spanish yoke. He captured Portobelo, but the place being afterwards re-captured by the Spanish forces from Panama, the prisoners—mostly British—were compelled to work on the public roads. Ten of the officers were shot, and when, in 1820, the order to free the captives arrived, only 40 half-dead men out of 417 claimed the boon, and of these several died before they could reach Chagres (Ros'repo's "Historia de Colombia"). A portrait of the gallant "Cazique" forms the frontispiece to Strangeton's "Mosquito Shore" (1822).

to nothing, though in later times a good many British subjects settled at Blewfields, and on the river flowing into the bay. The king was virtually an English vassal, but our protectorate giving rise to much heartburning, both in the United States and in Central America, was virtually abandoned in 1859, when, most unjustifiably, the natives were handed over with their territory to the Republic of Honduras. As the Spaniards are hated by all the Indian tribes—and nowhere more than in this quarter—this forcible change of masters gave rise to great discontent, and finally to a rebellion. At last, in 1860, the

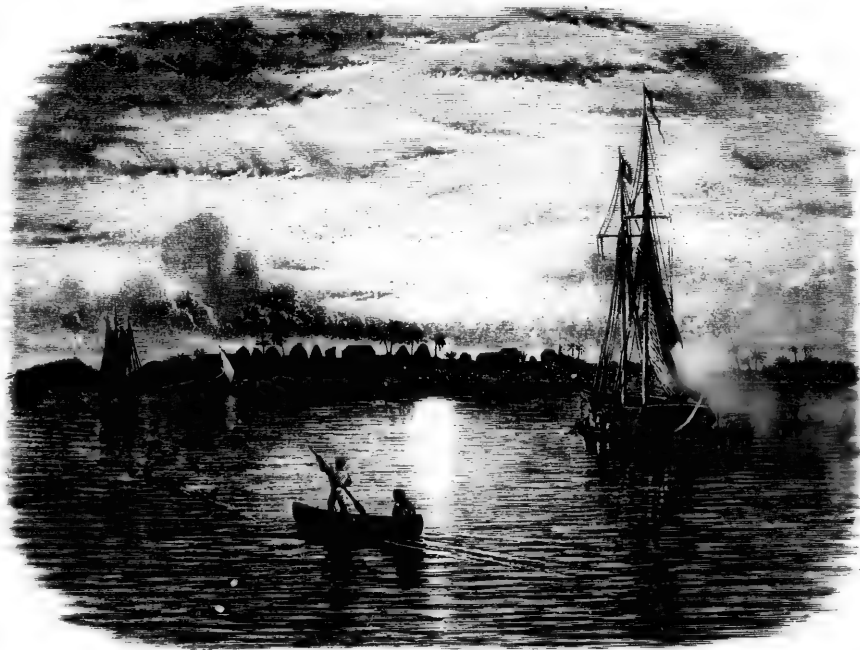


VIEW ON THE SAN JUAN RIVER, NICARAGUA.

whole territory was decreed to Nicaragua, though "King George's" authority is still partially recognised. The territory itself is rather undefined, much of the country between it and Honduras and Nicaragua proper being debatable ground. According to different estimates it is stated to comprise from 15,000 to 25,000 square miles. The coast is low, but possesses, in its many bays and lagoons, several good harbours. The climate, though rainy, is comparatively cool, and one of the most healthy in Central America. The products are those common to the neighbouring regions; deer, however, abound, and half-wild horses and cattle roam the savannas. Mahogany, cocoa, ginger, sarsaparilla, and tortoise-shell are exported, while the flesh of the sea cow affords a source of food to many of the Indians on the coast of the off-lying islands (p. 32). But the trade is very insignificant, the inhabitants, who number about 13,000, and are for the most part Indians and Sambos,

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occupying themselves chiefly in hunting and fishing, or to a small extent in cultivating patches of land, or rearing cattle. Blewfields, a little town at the mouth of the river of the same name, is the capital. Most of the Mosquitian scenery is pleasing, though not equal in grandeur to that of the neighbouring States. On a stormy day the wild surf, dashing against the basaltic cliffs, which form a considerable portion of the coast, affords a pleasant spectacle. Of this character is most of the coast from Greytown to Blewfields. Between these two points high mountain ranges run in north-west and south-east direc-



VIEW OF BLEWFIELDS, MOSQUITO TERRITORY.

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tions, and approach the water's edge, forming bold rocky headlands and deep bays; and the rivers in this district are very short, shallow, and rapid.* After passing Blewfields the country to the north gets flat and alluvial near the sea, only a few ridges and mounds of trap and limestone marking the retiring mountains. Extensive savannas prevail, intersected where rivers or watercourses traverse them by broad belts of timber. "Though of little use," writes Mr. Bell, "for the purposes of cultivation, these savannas are by no means dreary wastes; they present all the appearance of a beautiful English park: the ground here level, there rolling, and undulating in gentle hills, clothed in long but coarse wiry grass, and ornamented with clumps of the pretty 'papata' or fan palm, and

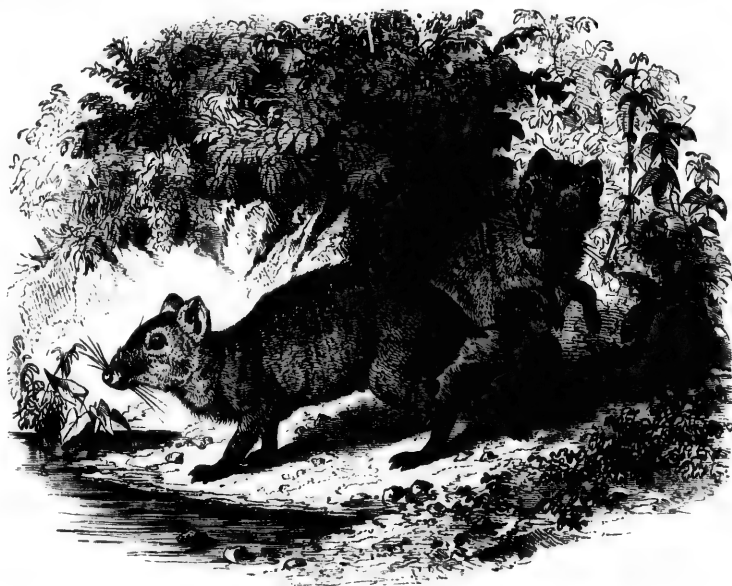
* Bell: *Journal of the Royal Geographical Society*, Vol. XXXII., p. 242. The map illustrating this paper is the most correct one of the territory extant.

groves of dark and stately pitch pines. Occasionally is found quite a European bit of scenery, where pines, live oaks, and willows, with banks of tall fern and moss, afford shelter to troops of deer and numbers of Indian rabbits that feed on the cones and acorns. As you go inland the savannas become overgrown, and gradually give place to the forest, and the land becomes higher as it recedes from the sea." These tracts, when they are of sufficient extent, afford excellent pasturage. The Indians rear cattle and horses on them, while the deer, pumas, and quails, which also abound, afford good sport. In the early dawn or the cool of the evening the deer (*Cervus Mexicanus*) come out of the forest, and then the Indians, concealed to the leeward of the game behind clumps of fan palms, kill them with arrows. In Guatemala it is said that when the Indians have killed a deer they let it lie in the woods, or in some hole covered with leaves, for the space of about a week, until it putrefies and becomes full of maggots; they then bring it home, cut it into joints, and parboil it with an herb which grows there, and greatly resembles tansy, which sweetens it again, and makes the flesh tender and as white as a piece of turkey. Thus parboiled, they hang up the joints in the smoke for a while, when they eat it, commonly dressed with Indian pepper. Such at least was the account given by one of the earliest writers* on the country, but whether the description applies now or not I have been unable to accurately ascertain. Still further north—from Pearl Key Lagoon to Cape Gracias-a-Dios, and from thence to Brewer's Lagoon—the coast is a long stretch of sandy beach, with the tall mangrove trees behind. "From the sea it presents only the dreary aspect of an endless stretch of white surf, with an even line of green behind, without a knoll or headland to mark the whereabouts; and the Indians only distinguish places by certain odd-shaped trees or patches of tall cabbage palms which grow at the river mouths. In several places, however, there are very extensive and valuable coconut groves, which line the back of the beach for many miles, and yield cargoes of excellent nuts." Beyond Brewer's Lagoon the mountains again approach the sea, in the neighbourhood of Black River, Cape Cameron, and Roman attaining the height of 4,000 feet. Finally, the ranges avoid the shore till they reach Truxillo and Omoa in Honduras, where they again form the beetling cliffs so familiar to seamen as marking the entrance to these harbours. The whole country is intersected by rivers, which is not surprising, considering the amount of rain which falls on it. Though these rivers abound in rapids and falls, many of them, after the bars at their mouths are crossed, are navigable for ships a considerable way into the interior, and all of them by canoes. Mr. Bell's description of the scenery on these rivers is so characteristic of the whole of Central America, that it would be unjust to abridge it. "Near the sea, as far as the salt water reaches, the beaches are wooded with white, red, and black mangroves, sapodilla, Santa Maria, saba, and a hundred other swamp-growing trees, with an underwood of small prickly palms and bamboos. These grow close down to the water's edge, supporting innumerable flowering vines, which, covering the tops of the highest trees, fall in matted festoons into the water, making a perpendicular wall of foliage, covered with sweet-smelling flowers of every hue, presenting an unbroken face for miles, except where a great silk cotton-tree has fallen into the

* Thomas Gage: "A New Survey of the West Indies, &c." (1648).

river, leaving a dark door into the thickets inside, or a cabbage or hone palm thrusts its feathery top through the wall, as if to get a peep of the broad river. In other places the beautiful sillico, oil, or hone palm, hangs over the river for miles, making a delightful arcade under their graceful branches beneath which to paddle when the sun is scorching on the open river. As we get out of reach of the sea water the land rises, and the vegetation assumes a new aspect; the banks are fringed with a broad band of 'kboo,' or scutch grass, above which is a dense jungle of bamboos, and above all the stately magnificent forest, which the Indians call real forest, in distinction from the tangled thickets of the lower parts of the river. Here the river winds through banks of sand and pebbles, the favourite resort of numbers of alligators, 'guanias, and river tortoises, which bask in the sun in the heat of the day. Here and there enormous silk cotton-trees crown the banks, growing among the grass a little apart from the forest; in other places the Indian fig bends over the water, sending hundreds of roots into it from its highest branches, and forming a luxurious shady retreat from the overpowering noonday heat. Higher up, the river is occasionally contracted between perpendicular rocks, overhung with beautiful 'sung-sung' bushes and bamboos, which in some small rivers, bending over from either side, meet overhead, totally shutting out the sun, and casting a dark and ominous shade over the boiling river below, which rushes through the broken rocks and round the sharp bends with a dangerous velocity. Further on it opens out again into broad sunny reaches, the sides covered with bright green grass, among which the beautiful silver-barked mountain guava rears its lofty head, often festooned round with the pendent nests of the yellowtail, which choose this tree, as no snakes or monkeys can climb its smooth stem. Some of the rivers, as the Toongla, Twaka, and Laya Siksa, run for miles through cliffs of red clay, which the floods are constantly wearing away, so that large pieces of the banks are precipitated into the stream, with all their bamboos and trees upon them, which wave about in the water and make an extraordinary appearance. The forest, though pretty open in the upper parts of the river, has occasional dense patches overgrown with a small, very thorny species of bamboo, called by the Indians 'Sookwa,' interlaced with thorny vines and cutting or razor grass. In other places large tracks are covered with a long-pointed very tall reed, with leaves like the bamboo; large trees grow scantily among them, but no other underwood. In other places are found groves of cahka and other palms, which strew the ground with prickly leaves and seeds, making it almost impassable for the barefooted Indians, which is more provoking, as these places are the resort of droves of 'warrel' and peccary (two species of wild hog), whose favourite food is the prickly nuts of these palms. Covered as the ground is with wood, the only way to get a view of it is by climbing a tall tree growing on a hill; thence you see spread out before you a sea of tree tops, undulating in small hills, with a few elevated ranges towards the westward, but falling towards the east in a level plain, which, from its uniform colour, can hardly be distinguished from the sea. The land is intersected by innumerable little streams and ravines, but the soil is deep and fertile. On the small streams running into the main rivers are situated almost all the mahogany works, as the mahogany tree seldom grows near enough to the main river to allow of its being conveyed direct to it. These streams, or creeks as they are called, present the most romantic and beautiful wood-

land scenery that can be imagined, winding through dark moss-covered rocks, through avenues of tall trunks, or under a leafy arch of bamboos and 'sung-sung' trees, and the noonday sun can only penetrate the thick foliage in small patches. In places the creek opens out, and lets down a blaze of sunshine, the more frequent from the gloom of the rest, while the banks of white sand and pebbles dazzle the eye as you emerge from the shady recesses. Here flocks of curassows, with their legs stretched out and covered with their wings, recline luxuriously in the sun, and numbers of iguanas and tortoises crawl up to warm their chill blood. Occasionally an otter emerges from the clear deep pool with a



THE AGOUTI (*Dasyprocta Agouti*).

prime fish, and laying it down, gambols about on the sand; flocks of little green river-swallows skim over the surface of the water uttering their shrill cry; and gorgeous humming-birds appear for an instant at the cluster of flowers that hang over the stream, then dart into the depth of the forest again. The stillness that reigns in the woods at mid-day is something awful, uninterrupted even by the tinkling of the millions of crickets or the mournful cooing of the ground dove. All Nature seems to retire to rest for a season, when the sun, having reached his highest point, sends down a flood of light and drowsy heat. On a stone in the middle of the murmuring stream the snowy white egret dozes on one leg, unmindful of the little fish that venture near; the gaudy kingfisher preens his feathers on a twig over a dark pool where he is shortly to resume his labours; and even the restless monkeys congregate in little knots on a great spreading tree, some lazily reclined on the biggest branches, some picking one another's hair. Every now and

then some of the more active pursue one another over the branches, then return, and cast themselves down beside the rest, and doze away for a while with their heads bent down between their knees. But when the cooler rays of the declining sun begin to slant through the trees, the woods wake up again as it were from a trance. In all directions are heard the cries of different birds and animals; long strings of yellowtails wend their way to some favourite fruit tree, uttering their whining cry; flocks of green paroquets rush through the trees with deafening screams, and the quain startles one with his loud shriek



THE IGUANA (*Iguana tuberculata*).

as he flies down to the ground in search of seeds." The animals of the Mosquito territory bear a strong family likeness to those of Guiana and Northern Brazil. We need only mention, in addition to the species already noticed, two varieties of opossums, the "araree," or bush dog, a large species of weasel about the size of a fox, the ant-bear, the warree, and peccary, the agouti (p. 44), the capibara, or water hog (a rodent, by the way, not a hog at all), &c., and among the birds five or six species of pigeons, toucans, trogons, macaws, the king vulture, the beautiful banana bird, whose song notes have such variety in them, the pineapple bird, whose music is "just like a chime of church bells in a sweet silvery key, and uttered with measured composure," &c. In addition to several venomous snakes and the boa-constrictor, there is the great iguana lizard, which is found in countless numbers along the rivers. Its favourite haunt is among the Indian figs, which hang over the water. When disturbed, Mr. Bell describes them as plunging into

the water from the top of the highest trees, and, attaining a length of five or even six feet, are sometimes dashed to pieces when they happen to alight on a passing canoe. The flesh is exceedingly delicate and well flavoured, and the eggs are also rich. Alligators and a small species of crocodile abound. The latter is eaten, and though its flesh is disagreeably musky, it is white and tender. Another lizard—the “ishilly”—is also eaten not only by men, but by the hawks and eagles, and even the lordly puma does not despise them when other food is scarce. In addition to various species of fish, the manatee, or sea-cow, is common. It is extensively killed by the Indians, who preserve it by merely dipping it in the sea, and then allowing it to hang in the sun or smoke. Turtle are killed off the coast and on the islands, but their chief haunt is further to the south, and while land crabs wander about the keys at night disturbing the weary boatmen by biting their toes, fingers, and other exposed portions of the body, demolishing the remains of their supper, while during the day they have all disappeared under little tufts of grass, or at the roots of trees.* The Mosquitian Indians we have already described elsewhere.†

COSTA RICA.

At one time Costa Rica was looked upon as the most promising of the Central American Republics—promising, that is to say, as the one-eyed man is distinguished for his perfect vision when among the blind. Perhaps it is still the best of them, but bad is the best. Its area is about 21,495 square miles, and its population was, in 1874, officially estimated at 175,000, though at the present time it must be nearer 185,000. Taking the last official estimate as the basis, there were 5,000 civilised Indians of pure blood, 12,000 negroes, and 600 Chinese, besides 10,000 to 12,000 uncivilised Indians. The population of European descent, chiefly Spanish, congregate nearly all either in or around the capital in the district of the Rio Grande. Like most of Central America, the interior of the Republic is mountainous, interspersed with plateaux and valleys. Part of the Cordillera in the north is volcanic, two of the summits—namely, Irazu and Turrialba—being over 10,000 feet in height. In the south is the range called Montaña Dota, from 7,000 to 9,000 feet in height, and extending from west to east nearly across the country. Between its northern and southern branches lie the table-lands of San José and Cartago, a central plateau having an elevation of 3,000 to 4,000 feet. It is almost the only cultivated region in the country. In the Montaña Dota are also the highest points in the country, viz., Cerro Chiripó and Pico Blanco, or Nemú, 11,740 feet above the sea. Several rivers flow from either side of these central mountains, but the two sides of the range are widely different. On the Pacific slope the country is comparatively high, and is cut up by the Gulfs of Nicoya and Dulce. Here are found broad savannas, or llanuras, surrounded by forests, and the country is accordingly more accessible and settled. The Atlantic slope is, on the contrary, low, and covered with dense forests, which have for ages closed it to traffic, and allowed its inhabitants, the Pranzos, Bizeita and Terrbis Indians

* Bell, *ib. cit.*, p. 268; Squier: “Waikna, or Adventures on the Mosquito Shore” (1856); Strangeways: “Sketch of the Mosquito Shore, including the Territory of Poyais” (1822); Bard: “Adventures on the Mosquito Shore” (1875), &c.

† “Races of Mankind,” Vol. I., pp. 250–259.

—sometimes called collectively the Talamancas—to remain in the more impenetrable regions in the state of positive savagedom and freedom. This region is cut up by the Great Lagoon of Chiriqui, in addition to a number of smaller ones “formed by the prevailing currents opposite the river-mouths,” to use Mr. Keith Johnston’s expression. These Indians are quite independent of the Costa Rican Government, and beyond trading a little with the Jamaica people, or with the Mosquito Indians, who come to catch turtle in the lagoons, they do not care, for obvious reasons, to come too much in contact with the whites. What has been said of the climate of Guatemala applies equally to Costa Rica—in other words, it varies according to elevation, from the feverish regions of the coast to the healthy and comparatively cool uplands of the interior. Here earthquakes are at home, and frequently commit great damage, a very severe one, in 1841, having destroyed the town of Cartago. The soil, where cultivable, is exceedingly rich, all the usual tropical crops growing in perfection, but as yet only 1,150 square miles are under culture. Coffee is the chief product, the value of that exported in 1874 being estimated at £892,800, while the hides, timber, &c., were put down at £20,000. Like the rest of Central America, the country is still undeveloped, and though probably more peaceable than most of the other republics, yet of late years it has also had to suffer from intestine quarrels, and disputes with Nicaragua on the question of boundaries—a subject, one would think, of very secondary importance in a country where land is of so little value, and the population so small in comparison with the area it occupies. The roads are, with a few exceptions, mere bridle-paths, or mule-tracks. The chief highway is the wagon-road from Punta Arenas (p. 49), on the Gulf of Nicoya, the only port in Costa Rica worthy of the name, which leads to the capital San José—a town of 13,000 inhabitants—and then hence to Cartago, containing 10,000 people, on the Central Plateau. There are about forty-two miles of railway, part of an inter-oceanic line meditated, but which, owing to the invariable pecuniary difficulties which oppress these poverty-stricken Republics, has never been completed. Manufacturing industry is non-existent, but gold, silver, copper, iron, nickel, zinc, lead, and marble are found, though with the exception of gold, silver, and copper, they are in the usual undeveloped state of all things in these sleepy lands. The present constitution is the seventh that has been in force since the Republic was established, and will, no doubt, in due time be replaced by an eighth. According to an official return, the revenue for the year ending April, 1877, was calculated at 2,236,000 dollars, and the expenditure at 2,626,427 dollars, leaving a deficit of 390,427 dollars—a state of matters which has existed for some time, and is likely to continue. In fact, the Republic is bankrupt. In 1871 it contracted in London a loan of £1,000,000, and in 1872 another of £2,400,000, for the construction of an inter-oceanic railway. In 1875 the debt contracted ostensibly for this purpose was £2,400,000, but of this sum only £1,116,000 had been spent on the line up to 1873, when the execution of the work was stopped. Since then no attempt has been made either to pay principal or interest,* so that it is not likely that the Republic will again resort to that easy method of filling its coffers, which it pleasantly calls “borrowing.”

* In 1875 the Foreign Loans Committee of the House of Commons reported that “except the sum retained in England out of the proceeds, the bondholders never received anything whatever in respect of the principal or interest of the debt.”

though in older and more honest times it used to be called robbery. In 1876-77 the total exports of the Republic were calculated at 5,307,406 dollars, of which 300,000 were exported by the Atlantic ports, and 5,007,406 by Punta Arenas. From the latter harbour in that year 4,859,154 dollars' worth of coffee were exported (see p. 47); hides, 64,533 dollars; india-rubber, 86,230; and flour, 15,421 dollars. Among the shipping the following nationalities were represented:—93 North American, 44 English, 10 French, 5 German, 23 Colombian, &c.

Costa Rica was discovered by Columbus on his third voyage, and was visited by Spanish adventurers soon after 1502. In 1821, after a struggle with the faction which wished to unite with Mexico, the fate of a battle fought at the Laguna de Ochomogo decided its erection into a separate Republic. In 1824 it joined the Central American Federation, and when this short-lived union broke up in 1839, it again resumed its independence. Its position at one end of Central America, separated from the nearest State by an extensive waste country, is favourable, if not to commerce, yet to peace, which is even rarer in that revolution-racked land. At one time also the poverty of the people was their safeguard. Turbulent and needy men left Costa Rica alone, and while the rest of Central America was a prey to factious revolutions, "self-appointed regenerators and pretended political theorists," it enjoyed almost perfect tranquillity. But this day seems over, for in late years internal dissensions have produced continual changes, civil wars, and insurrections, so that few of the later presidents have served their full term of office. At one period, no portion of the Spanish king's dominions were thought so miserable and profitless as Costa Rica. Less than seventy years ago, Juarros represented the district as so impoverished that he suggested that the name, "Rich Coast," had been given to it ironically in contempt of the few resources it possessed.*

CHAPTER III.

THE ISTHMUS OF PANAMA.

THE Isthmus of Panama, or Darien, belongs properly and politically to the Republic of the United States of Colombia, which will be sketched in a future chapter. But physically it can best be described in connection with Central America, of which it is really a part, though the chances of revolutions have thrown it in with a country whose capital lies far from the railway which has made it so familiar to thousands, who, while they know "the very noble and very loyal" city of Charles V., never heard of Bogota among the Andean mountains. I think it better, therefore, to devote a brief chapter here, before

* Belly: "A travers l'Amérique centrale" (1872); Boyle: "Ride across a Continent" (1868); Peralta: "La République de Costa Rica" (*Le Globe*, 1871); Peralta: "Costa Rica" (1873); Frantzius: "Der südöstliche Theil der Rep. Costa Rica" (Petermann's "Geographical Mittheilungen," 1869), &c., as well as the works, papers, and maps of Fröbel Marr, Scherzer, Wagner, Molina, Gabb, Polakowsky, and Keith Johnston, the Consular Reports, and the official publication, "Informe presentado por el Secretario de estado en los despachos de hacienda y commercio al Congreso constitucional" (San José, 1877).

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VIEW OF PUNTA ARENAS, COSTA RICA.

speaking of some general matters connected with Central America, to that isthmus, the name of which has at least for three centuries been more familiar to the ears of the civilised world than any of the Republics in its immediate vicinity. In these prosaic, all-wise days, one cannot fully picture the excitement which the discovery of the New World raised in Europe. In itself the tale which the bold Genoese had to tell was sufficiently wonderful, but it was exaggerated by the vague, uncertain, ever-gathering reports which passed from mouth to mouth, from sea-port to sea-port, and on to the inland capitals, until at the court of Henry VII.—who, but for an accident, might have had the undeserved good fortune which fell to Ferdinand and Isabella*—the discovery was pronounced a “thing more divine than human.” And what an adventure it was! New trees, new men, new animals, new stars, to be seen. Nothing bounded, nothing trite; nothing which had the bloom taken off by much previous description! These early voyagers, moreover, were like children coming out to take their first gaze at the world with ready credulity, and unlimited fancy, willing to believe in fairies and demons, Amazons, and forms of a lower hemisphere, mystic islands, and fountains of perpetual youth.† And soon, amid the wild tales of the Islands of the Blest, where hunger and cold were unknown, and nakedness therefore not to be dreaded—where, during the livelong day, the sun glowed with cheerful warmth, and the mellow nights were illumined with a moon such as even Castile and Leon knew not of, and by constellations that were strange to the mariners who first saw them—where fruits of the richest hues hung ready to be plucked, where fishes of the brightest colours swam in the waters, where gold was as dust, and precious stones as pebbles, and where the natives were “clothed with sunbeams”—the name of “Panama” was often heard. The title of “Castilla del Oro”—Golden Castle—was applied to a portion of the isthmus which is now known to be, perhaps, the most unprofitable and unhealthy portion of the whole region, and where the settlers, instead of gold, find graves. “In this realm of enchantment,” writes Prescott, “all the accessories seemed to maintain the illusion. The simple natives, with their defenceless bodies and rude weapons, were no match for the European warriors armed to the teeth in mail. The odds were as great as those found in any legend of chivalry, where the lance of the good knight overturned hundreds at a touch.” The memory of the cruelty of these early explorers—Ojeda, Nicuesa, Encisco, even Balboa—and above all Pedrarias Davila, that terrible old man, still lives in the Indian memory. At present there may be about 10,000 aborigines scattered over Bocas del Toro, the northern portion of Veragua, the north-eastern shore of Panama, and almost the whole of Darien; they consist principally of four tribes, each of whom speaks a different language, and are frequently at war with each other. They are profoundly suspicious of the whites, and some of them have not even yet abandoned all idea of once more regaining their lost rights. Until late years one of the Savaneric chiefs assumed the pompous title of King Lora

* Columbus, as is well known, sent his brother Bartholomew to open negotiations with Henry VII., in case he should be disappointed in Spain as he had been in Portugal. On the voyage to England he fell into the hands of pirates, who stripped him of everything, and held him prisoner for several years. When he finally escaped and reached London, he was so destitute that until he could gain a little money by the drawing of maps for sale, he was unable to appear at court in fitting style. But by this time it was too late.

† Helps: “The Conquerors of the New World and their Bondsmen.”

Montezuma, and pretended to be a descendant of the famous Mexican Emperor (Vol. II., p. 240), though one can scarcely credit that this idea was of home growth. Almost every year he used to send an envoy to Santiago, the capital of the district of Veraguas, to protest against any assumption of his rightful authority as lord of the land. So jealous are these Indians of Europeans, that though a Cazique, or chief of the Bayanos, used frequently to visit the British Consul in Panama, yet, when the visit was proposed to be returned, our representative was promptly informed that no European was allowed to enter their country, and that if the attempt was made it would only result in the death of the rash man, be he who he might. When in Panama I was told by a dealer in pearls and gold dust that frequently Indians arrive from the interior with small quantities of gold dust for sale. They unroll it from the corner of a bit of cloth, look suspiciously around, eagerly grasp the coin they receive for it, and immediately expend it on some article of use or luxury, but are notably deaf to all hints as to where they got the gold: to all queries in that direction they simply reply with the formula *Quien suabe?*—"Who knows?"—or more politely, *Non intiendo, Señor*—"I do not understand, sir." Mr. Bidwell tells us that one of these "chiefs" used to visit a friend of his in Panama, and on one occasion was presented with a coat and stick on departing for his native forests. A short time afterwards the presents were returned with a sad message from the poor Indian, who had been degraded by his superior for his want of loyalty to his tribe, in having accepted even these trifling presents from their natural enemy the white man. I can conceive no more humiliating commentary upon the abomination of Spanish rule in the New World than this trifling anecdote, which speaks even more powerfully for the memory of hate which has descended to the Indians from their ancestors, than even the ghastly reprisals which history records they have taken again and again upon their oppressors. The Isthmus of Panama has been the scene of many an unsuccessful attempt at settlement by Spaniard and Scot alike, of wild revels, plunderings, and bloodshed by buccaneer, conquistador, and gold-digger, until in modern times its only reputation—and that one not increasing—is connected with the railway which spans the isthmus, and which in its turn may have to give place to a canal, when the glories of the isthmus will again revive. In early times Portobelo was the chief town on the Atlantic side, though so unhealthy as to be the European's grave. Here the galleons from Spain entered, and here the treasures of the New World on the Pacific were bartered for the rich cargoes brought from Castile. For forty days a great fair was held in this pestilent place. By-and-by the endless bombardings, captures, and sackings which the place sustained, combined with the rising importance of the healthier places on the Pacific coast of the isthmus, caused Portobelo to be deserted. At the present time this town, which once contained two castles, and 8,000 inhabitants, is all but abandoned. The same may be also said of Chagres, which, after the war of independence, was the Atlantic port through which the traffic was conducted. It is a miserable and unhealthy village, lying at the mouth of the river of the same name. It now contains only about a thousand inhabitants, mostly Indians and negroes, and has most probably, like Portobelo, fallen to rise no more. I can conceive of no pleasant memories connected with either, though the former town was, before the railway was built, a busy place,

especially during the rush to California. After the railway was determined on, Colon, in Navy Bay, was selected as the Atlantic terminus, and in this place all the traffic now centres. It is not healthy, as none of the low swampy shores of the isthmus are, though even this locality has defenders who will claim for it a certain salubrity. Be it so: whether one place in that latitude of America is a little more feverish or a trifle less so than another spot, is not worth disputing about. But this I know—having visited it—that it is not a desirable place of residence, though to the visitor freshly arrived from the “muggy” shores of England in February, or from the still more dreary snow-covered “States” at the same period of the year, “Colon,” or Aspinwall—as in atrociously bad taste the Americans insist on calling it—with its wealth of tropical verdure, looks a pleasant spot, until he begins to get acclimatised and “has his fevers.” The first thing which strikes the new arrival is, of course, the motley crew of negroes and native mongrels who crowd



VIEW OF PARAISO, ON THE PANAMA RAILROAD.

the wharf, and next the strange mixture of the natural and the artificial, the wild and the civilised, which presents itself here. In Colon flourish—as they flourished before “the Gringo” (Yankee, heretic) arrived—the wildly luxuriant tropic trees, and yet from amid a cocoa grove we can hear an engine shriek, and see the depôt and factories of the railway company in all their intense newness and Philistinishly business aspect (p. 61). Against the rails of the Protestant Church, imbedded in the walls of which is a memorial to John L. Stephens, who spent the best years of his life in exploring the antiquities of this torrid land, leans—stolid, primitive, and old-world—an Indian, who might have been one of those who came down to look at the fierce conquistadores and their fiercer dogs, and whose ancestors were “spent” in bearing the burdens of Nuñez Balboa from sea to sea. But nobody “spends” him now: there he lounges in listless grace, and *dolce far niente* carelessness of a workaday world. Aspinwall the Americans have named after a quondam potentate of the railway company; and though for a time the Grenadian Government used to return letters so addressed, under the very proper plea that no such place was known, they have now been forced to yield an unwilling adhesion to the tasteless change. Yet close by one of the gaudy hotels—all so fresh and all so prosaic—we come upon a statue erected to Columbus (p. 65), which reminds us that this new-looking town is in reality one of the oldest “cities” on the American continent, and derived its name

from the great admiral—Christopher Columbus, Colombo, or Colon. Most of the houses are built of wood, and are of course uncomfortable, as wooden houses must ever be in the tropics. "Colon," writes Mr. Consul Bidwell, "is very young and very green: the houses are green, the groves are green, the streets are green, the surroundings are green, but *greener* still than all are the persons, I think, who having a choice, select Colon for a residence." Everything here smacks of "the railroad." The railroad buildings are the only ones of any consequence, the railroad officials' residences are the best, and the railroad men themselves, by tacit consent, are the lords of this hot, unwholesome Hispano-American or Americo-Spanish village. Swamps are all round, and the little rural-looking lanes are always ending either in, or in disagreeable vicinity to, a swampy place, covered



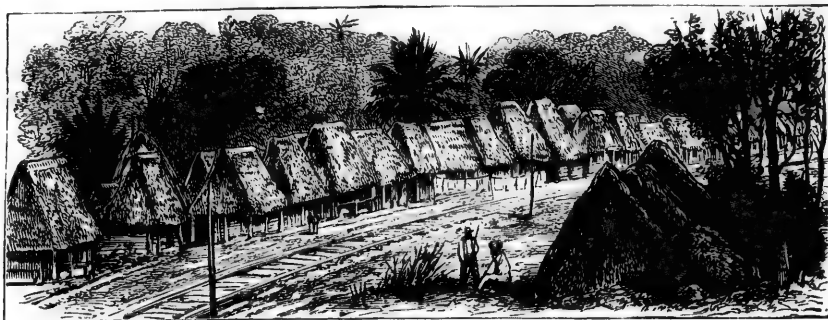
VIEW OF SAN PABLO, ON THE PANAMA RAILROAD (WITH IRON BRIDGE ACROSS THE CHAGRES RIVER).

with a dense carpet of tropical vegetation. It is indeed built on an island (Manzanilla), and all the water used is caught during the rainy season, and preserved in iron tanks through the dry one. But as rain falls here for about some eight months in the year, there is never any lack of this element, though as to the quality I cannot vouch. Except for culinary purposes I fancy very little is consumed. I hazard this opinion from the state of the "bars," and a general acquaintance with the habits of the people. With the exception of beef, fish, and tropical vegetables, all provisions are imported either from the United States or from England—chiefly the former—while New England also yields the colonists an abundance of ice, which is appreciated in a country where the climate always "plays about between 70 and 90 degrees." Everybody—native and foreign—speaks English, and though it is by a legal fiction under the government, and subject to the laws of the United States of Colombia, and more particularly those of the State of Panama, in reality it is a part of the United States, governed by the foreign consuls who congregate here in great abundance. Moreover, it is a free port, and the inhabitants who are not connected in some way with the railway or wharf are given over to the cultivation of bananas

for the New York market. The number of inhabitants, many of whom are Jamaica negroes, is about 7,000. Colon must be now somewhat dull, since the Californian traffic has almost entirely been taken away by the Pacific Railroad, yet a few years ago it was a busy place when the New York steamers, and to a less extent when the West Indian ones, arrived here. An American writing in 1855 described the population as doubled by the new-comers on a steamer day. "The hotels deserted the day before are thronged, and their hosts awake once more to the consciousness of their functions of taking-in people. Bar-rooms again reek with an atmosphere of gin-sling and brandy cocktail, while the bilious-faced bar-keeper, only yesterday prostrate with fever, shuffles across the counter a quick succession of drinks to his throng of impatient, thirsty customers; billiard-balls, temporarily stowed away in pockets, begin to circulate, driven by the full force of sturdy red flannel-sleeved arms; the shops flutter out in the breeze their display of Panama hats and loose linen garments, and adding a hundred per cent. to their prices, do a brisk business; the very monkeys quicken their agility, the parrots chatter with redoubled loquacity, the macaws shriek sharper than ever, the wild hogs, ant-eaters, and even the sloths (for all these zoological varieties abound in the hotels and shops of Aspinwall) are aroused to unwonted animation." The only pleasant feature about Colon is the Paseo-Coral, a drive made along the sea-shore, and which, morning and evening, and especially on Sundays and holidays, is a favourite resort of the inhabitants. "Any lover of the beautiful in nature," writes Dr. Otis, "will find it worth his while to make a tour of this 'Paseo.' On one side charming glimpses of the ocean and of the 'Archipelago' (which cuts off the island of Manzanilla from the mainland) meet the eye at every turn, and at almost every point the conchologist may step out upon the coral reef and find sea shells, caves, and coral to an indefinite extent. On the other, a great variety of tropical vegetation invites the lover of botany to cull from its varied and luxuriant growth. Here and there narrow paths lead from it to little native plantations of banana, papaya, and yam, imbedded in which the native hut, with its severely simple furnishing, may be seen, and will convey to the traveller an idea of the habits and character of the native inhabitants of this country." Yet the Colon-ists are very irate if anything is said against their city. "It is very superior to Panama" (which is the rival city); "it is decidedly cleaner, decidedly cooler, decidedly healthier." A visit to the freight warehouse of the railway will afford the reader a glance at the articles transported across the isthmus. The handbook to the railroad describes the contents as consisting of "bales of quinine bark from the interior piled many tiers deep, and reaching the iron triangular braced roof of the edifice; ceroons of indigo and cochineal from San Salvador and Guatemala; coffee from Costa Rica, and cocoa from Ecuador; sarsaparilla from Nicaragua, and ivory nuts from Portobelo; copper ore from Bolivia; silver bars from Chili, boxes of hard dollars from Mexico, and gold ore from California; hides from the whole range of the North and South Pacific coasts; hundreds of bushels of glistening pearl-shells from the fisheries of Panama lay heaped along the floor, flanked by no end of North American beef, pork, flour, bread, and cheese, for the provisioning of the Pacific coast, and English and French goods for the same market; while in a train of cattle cars that stood on one of the tracks were huddled about a hundred meek-looking llamas from Peru on their way to the island of Cuba, among

whose mountains they are used for beasts of burden as well as for their wool. A trip over the Panama railroad gives one an excellent idea of the tropics, and as it is a very leisurely journey, the traveller can observe at his ease. Indeed, the first time I crossed it we ran off the line, but in such a quiet, sedate sort of way, that we were not conscious of the fact until the conductor requested us to alight while he procured men and crowbars to raise the errant cars on to the right way again. We were then not far from Paraiso (p. 52). On every side was dense tropical forest, with paths along which tall sombre-looking Indians were journeying, machete in hand, to their airy huts, which we could see on a little savanna beyond. On every side of the line grew a carpet of the sensitive plant (*Mimosa*), which folded up behind and ahead of us as we walked along. The sun went down, and the heat of the day was exchanged for the comparative coolness of the evening. At Paraiso a fandango, or Spanish dance, was going on, and so at that tropical "Paradise"—for so the name means—we halted until the train arrived and picked us up. But, excepting mail days, there is not even a pretence at hurry, and scarcely any—at least so it was when I knew it—at punctuality. By the Company's contract with the Colombian Government they must run a train at least once a day over the isthmus and back again. Now as the fare is £5, few people, unless on business intent, will travel by this expensive line. The result is that on ordinary "off days" the passengers are few, and, to use the familiar language of the functionaries, mostly "dead heads," that is, favoured or impecunious persons travelling with free passes; and as the railroad gentlemen are the most liberal of people in the way of passes to all distinguished personages, and even—as I have reason to know—to some who do not at all come under that category, it is a passenger's own blame if, in the transit from sea to sea, he does not learn something of that weary road which Balboa first trod, and since that memorable year of 1512, so many thousands more gentle and simple, courageous and cowardly, good, bad, and indifferent. The first fifteen miles of the line is built on trestles over a deadly swamp, but afterwards the scenery is pleasing and the vegetation rich. Palm trees of several varieties and of bamboo are on every side, and among other plants strange to the traveller who peeps out of the carriage window, are the great orchids which climb over the trees, mingled with the purple convolvulus, and a hundred other tropical parasites. Yet this road was cut with great toil and at the cost of many men's lives. The passenger who knows the history of the enterprise cannot help thinking, as he sits in safety and comparative comfort, of the road as strewn with "dead labourers, victims of fever, exhaustion, suicide, like a battle-field." Yet, before the railway was built, the loss to life was scarcely less. The feverish multitudes who crowded to California were often imperfectly provided with food, clothing, or means of transport, and often all too well provided with the most villainous of drinks. Hundreds fell sick of fevers, hundreds more were exhausted with the toil of the journey, while others reached Panama in the condition which an acquaintance of the writer did, clad in a very light and not over elongated shirt, and—nothing else! Some of the little stations alongside the railway, and which are also usually Indian villages, we have figured on pp. 52, 53, 56, 57. The present city of Panama (Plate XXII.) is not "the very noble and very loyal city" which the emperor spoke of in 1525. This was destroyed in the year 1671 by the buccaneer Sir Henry (as he is often called, Sir Thomas) Morgan, whose acquaintance we made in his comparatively respectable days as Governor of Jamaica. Previous

to that date it had consisted of about 12,000 houses, eight monasteries, and two churches, all richly furnished, and many of them really splendid. It was the "jumping off place" for all the adventurers, north and south, and the spot to which they returned with their plunder, to revel after their career of rapine. It grew rich on oppression and robbery. The site was, however, unhealthy, and when it was rebuilt again by the emperor's orders it was removed four miles westward. All that remains now of the old city is a tower and a few traces of other edifices overgrown by brushwood. But if we are to believe the accounts of the old voyagers, the new city soon equalled the old one. Dampier, for instance, grows absolutely eloquent over it:—"The road is seldom or never without ships; besides, once in three years, when the Spanish armada comes to Portobelo, then the Plate fleet also, from Lima, comes hither with the king's treasure, and abundance of merchant ships full of goods and



VIEW OF THE VILLAGE OF BUENA VISTA, ON THE PANAMA RAILROAD,

plate. At that time the city is full of merchants and gentlemen, the seamen are busy in landing the treasure, and the carriers or caravan masters employed in carrying it overland on mules (in vast droves every day) to Portobelo, and bringing back European goods from thence; though the city be then so full, yet during the heat of business there is no hiring of an ordinary slave under a piece of eight a day; houses, also chambers, beds, and victuals, are then extraordinarily dear."* The Panama of 1878 is not a city which would lead any one to imagine that it had ever been of very great consequence. It is very sleepy, very decayed, and altogether a very tumble-down town, though viewed from the Pacific the house-covered rocky promontory stretching out into the bay has rather an imposing appearance. Ships are, however, now the exception rather than the rule in Panama Bay. It is, moreover, a city of the dead. The heavy stone houses, with their great balconies, speak of a time with which the present has very little to do; the once fine fortifications are in ruins, the great bronze cannon have long ago disappeared, the fifty or sixty barefooted ragged soldiers fail to recall the mail-clad conquistadores, but the cathedral, the churches, and the empty nunneries and monasteries bring us back to a time when Panama was "the noble and very loyal city" of His Most Catholic Majesty. The Panameños of to-day are also very different from those of last century, and certainly widely different from the people

* "Voyages," Vol. I., p. 179.

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SCENE IN THE LLANOS OF COLOMBIA.

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whom Dampier saw. Except early in the morning and late at night a stranger sees very little of them. Nobody goes out in Panama during the heat of the day if he or she can stay at home. There is languor in the air, and unless one pays frequent visits to the railway, he is apt to forget that there is such a thing as energy in the world. Heavy wooden balconies front the houses, in which a desire to keep the in-dwellers cool seems to have been the chief ambition of the architect, for design or convenience does not appear prominent characteristics to the stranger who sees them for the first time. The balconies seem to be the chief part of the house. All the flirting of the ladies, and much of the lazy, half-asleep smoking of the men, goes on in them. They serve as a garden, promenade, and reception-room, all in one. Sometimes the balcony officiates as bath-chamber, not unfrequently as



VIEW OF OBISPO, ON THE PANAMA RAILROAD.

kitchen, while most of them are utilised as a laundry and drying-ground for the family wash. One of the most disgusting sights of this—as, indeed, of most Spanish-American towns—is the chained malefactors cleaning the most frequented streets. They invariably beg from passers-by. It seems to be a recognised institution, and, indeed, the ragged guards compete with their charge for the alms of the charitable. When I say that Panama, in spite of the revivifying presence of Europeans and Americans, either as residents or as birds of passage, is still a Central American town, I have probably said enough to convince any reader who has made the acquaintance of any such “cities,” that it is not a model either in its moral or its municipal arrangements. In the Bay of Panama are several islands which form a pretty and picturesque group, among which are Toboga and the Pearl Islands, the latter so called because the inhabitants are chiefly engaged in the pearl fishery off their shores. This fishery produces on an average £35,000 worth of pearls per annum. The shells are also profitable, being sold for mother-of-pearl, but the business is, on account of the sharks and other ravenous fishes which abound in the bay, dangerous in the extreme. The soil of the isthmus is rich, and might in many spots be used for growing cotton, cocoa, sugar-cane, coffee, &c. Dye-woods, timber for ship-building and furniture, resins, and medicinal plants abound. Maize, rice, beans, plantains, sugar-canes, cacao, cocoa-nuts, cotton, sarsaparilla, and braid of

jipijapa (the leaves of *Carludovica palmata*, a species of screw pine) for making hats—though the “Panama hats” are not made here, but for the most part in Guayaquil—are among the vegetable crops cultivated. In Veraguas and Chiriqui are savannas on which cattle, sheep, goats, pigs, horses, mules, and asses browse. In the same province gold is got in considerable quantity, while coal has been seen. Salt, silver, copper, iron, emeralds, and platina have also been noticed. Gold has hitherto not been mined in any great quantity, owing to the noxious climate in the districts in which it is found. It is chiefly extracted in the province of Panama by a few negroes, who wash the sands of the rivers Mareá and Balsas. The celebrated mines of Cana, near Fuirá, were once called Potosi, and yielded a great return. But in modern times they seem to have been deserted, and, indeed, there is now no road leading to the place where they are said to have been situated. Gold is, however, found in other places, and a few years ago a number of adventurers from California tried their luck in the isthmus, but with no great success, partly owing to the absence of gold, and more still to the presence of Indians and fevers.*

CHAPTER IV.

CENTRAL AMERICA: MEN AND MANNERS.

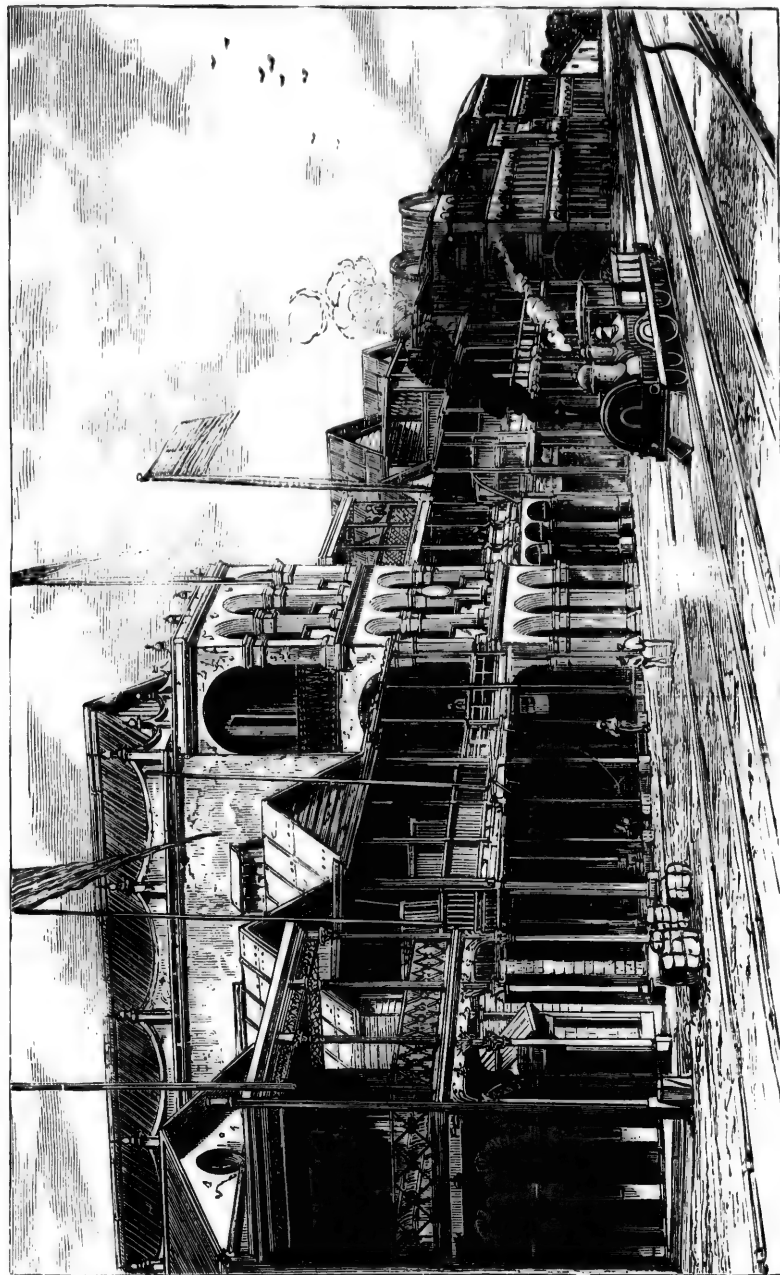
THE Indians these pages do not concern themselves with, except from a general point of view, though such is the way the aborigines have mixed their brown puddle with the blue blood of the conquistadores and their descendants, that in describing the ways of the American Spaniard we are incessantly landing in an Indian palm-thatched hut. The Spaniards in Central America bear but a small proportion to the native element, and in interest are not to be compared with these strange children of the land. We have already incidentally touched upon them as found in certain of the Republics described. As a type of many of these tribes scattered throughout South America—which we cannot even mention—we may devote a few paragraphs to a further notice of most of them, more especially, as in the work to which this is a companion and supplement, the aborigines of Central America had, perforce, to be dismissed rather briefly. Taking Squier and Roberts as the best of possible guides, we find that in Honduras the native element predominates, as throughout the rest of the isthmus. Indeed, in most parts of the State, it is difficult to say whether the Indians have most assimilated in masses to the Indians, or the Indians to the whites. In the east portion of the Republic—a area of not less than 15,000 square miles—the Xicaques and Payas Indians are about the only inhabitants. They are Roman Catholics, and live on a very good understanding with their white—or whiter—neighbours, though there are still independent villages of the tribes so-called, who, refusing to drop their ancient manners, live in the mountain

* Powles: “New Grenada: Its Internal Resources” (1863); Bidwell: “The Isthmus of Panama” (1865); Otis: “Handbook to the Panama Railroad” (1860); Zeltner: “La Ville et le Port de Panama” (1868); Haussarek: “Four Years Among Spanish Americans” (1867); the various Consular Reports, as well as those of Embassy and Legation; “Geographical Magazine” (with map of the isthmus), April, 1878, &c.

pass independent, but still peaceable. Every now and then they appear in the settlements to sell their sarsaparilla, dragon's blood, and other products of the woods, along with a little gold washed from the sands of the mountain streams, or come to the coast to engage themselves as labourers in the mahogany "works," though, when their engagements terminate, they always return to their homes. It does not appear that the civilisation was ever much higher than it is at present, and at no time were they on a level with the Quechés, Kachiquels, and Nahuatl, who reared the "cities" we now see in ruins on the plateaux of Guatemala, San Salvador, and the western part of Honduras. At the same time they were always more civilised, and in the end, though they at first resisted the Spanish invaders, proved more tractable than the wild roving fishing tribes, whose homes lie along the shores of the Caribbean Sea. Their appearance is very marked. They have long black hair, very broad faces, small eyes, and that peculiar expression of sadness and docility that is acquired through long ages of oppression, to which the oppressed have reconciled themselves. The Indians all through the conquered parts of Spanish America are the same. They are, as a rule, melancholy looking people, with faces that one insensibly becomes interested in. They are industrious hewers of wood, drawers of water, and bearers of burdens, fond of living by themselves, and still fonder of the fire-water which they get from the towns, or distil after their own barbarous chemistry. They are famous for faith and probity, but are an uncommercial people, having, except in the immediate vicinity of the towns, little idea of the value of labour, and, like all their race, none whatever of the worth of time. It is always "superfluous" for them to "know the time o' day," nor do they trouble themselves about it. The Sambos I have had occasion already more than once to speak of. They are also sometimes called the Mosquitos, but in reality are a mixed race of negroes and Indians. Their origin is peculiar. Early in the seventeenth century, a large Dutch slaver laden with negroes from the Sambo country, in Africa, was driven ashore to the southward of Nicaragua, though some will have it not far from Cape Gracias-a-Dios. The negroes escaped, and though at first they encountered resistance from the natives, they had afterwards wives and ground allotted to them.* From time to time their number was increased by slaves who escaped from the Spanish settlement (*cimarones*), or by negroes whom the planters from Jamaica brought in their various attempts to form settlements in different parts of the Mosquito Territory, while the buccaneers, who had their haunts among them during the period of their domination on the Caribbean Sea, "bequeathed," as Mr. Squier remarks, "a code of morality, which subsequent relations with smugglers and traders have not contributed to improve." The Sambos have always been in a manner *protégés* of the British Government, and the Governors of Jamaica from an early date fostered them, as a means of annoying the Spaniards at little cost to the English. To this policy we owed the protectorate of the Mosquito shore, and the subsequent complications now at an end. The firearms acquired by the Sambos made them formidable adversaries of the Indians. This superiority the former were not slow to take advantage of, in so

* Edwards: "History of the West Indies," Vol. V., p. 210 (Appendix); Henderson: "Honduras," p. 178; Wright: "Memoirs," &c., p. 28.

far that for years they were in the habit of descending on the Indian villages on the river banks, and carrying off the inhabitants to be sold as slaves. For long an active traffic in these captives was carried on with Jamaica, until the coast became deserted, or the Indian inhabitants purchased security from attack by paying tribute to the fierce piratical Americo-Africans. But that day is now over for ever, and with it the Sambos have lost most of their old vigour, and are now given over to drunkenness, which is rapidly hastening their extermination, their constitution being already weakened by the unrestrained licentiousness of their earlier life on this coast. The Sambos are of all shades between the Indian and the negro, their hair, as they approach the latter, having the woolly character more developed than when their complexion approximates to that of the Indian. The women are frequently handsome, and the children when young particularly so. Deformed children are never seen, from which fact it is shrewdly inferred that the Sambos have the ugly habit of destroying these unfortunates soon after birth. It has always been noticed that the climate of North America—and probably of the South also—is very unhealthy for cripples of aboriginal extraction. There are also some Caribs in Honduras. These are all that remain of the aboriginal inhabitants of San Vincent, one of the Leeward Islands. "During the contests between the French and English for the possession of the smaller islands of the Antilles, the Caribs of San Vincent were almost invariably attached to the French interest, and gave so much trouble to the English authorities and inhabitants, that after many contests and much bloodshed, they were finally, in 1796, carried *en masse*, to the number of upwards of 5,000, to the then deserted island of Roatan, in the Bay of Honduras. The cost of this deportation was not much less than £1,000,000 sterling. A few months afterwards they were invited to the mainland by the Spanish authorities, who aided them in founding various establishments on the coast, in the vicinity of Truxillo. Since then they have increased rapidly, and greatly extended their settlements, both to the eastward and westward of that port." In 1832 they rebelled, and were severely punished, while others of them took refuge within the colony of Belize. When San Vincent was first visited by Europeans, it was in possession of two distinct families of aborigines, who, however, spoke a common language. These were the Black and Yellow Caribs. It is said that this distinction was created in much the same way as were the corresponding changes in the population of the Mosquito Shore. In 1675, or thereabouts, a Guinea slaver foundered on one of the islands in the neighbourhood of San Vincent, and the negroes, escaping ashore, mingled with the natives, and produced the "Black Caribs." Afterwards they quarrelled, with the result that the island was divided between the two races, a state of matters which continued up to the date of the arrival of the whites. After this period disturbances broke out afresh, and, to the disgrace of the colonists, were fomented until they eventuated in open and exterminating hostilities. But in 1796 they were "a feeble folk." Common misfortunes and uncommon wrongs had forced them to unite in friendly relations, though this fusion has not been so perfect that the original distinction is not even yet evident in their new home in Honduras. The Black Caribs are taller and stouter than the pure Caribs, and though both are equally active, industrious, and provident, which the Sambos and most Indians are not, the former are more mercurial and vehement in their passions than the pure race. They are also more



THE TERMINUS OF THE PANAMA RAILWAY AT COLON (ASPINWALL)

civilised in their habits, living in good huts, which are kept moderately clean, and according to the Caribbeans' ideas of things, even comfortable. Most of them speak Spanish, a little English, and even a few sentences of Creole—French, and Mosquito—but among themselves they always discourse in their original Carib. They profess the Roman Catholic religion, and have already been noted as some of the best labourers in the mahogany woods. They, however, still retain a good many of the old savage rites and customs. Polygamy is especially prevalent, each wife having a separate house and plantation, so that the habit becomes expensive. It is, moreover, not conducive to a quiet life, for if the husband makes a present to one wife, he must also make one to all his other wives. On the other hand, these ladies do not lead an idle existence. Young describes the mode of procedure when a new spouse is resolved upon. The man fells a plantation, and builds a house; the wife then takes the management, and he becomes a gentleman at large until the following year, when another plantation has to be cleared. The wife tends these plantations with great care, perseverance, and skill, and in the course of ten or twelve months has every description of breadkind in use among them. The products are entirely her own. Accordingly she only keeps sufficient at home for her husband and family, disposing of the rest to purchase clothes and other necessities, more especially finery for herself. The men are noted for their love of dress. They wear red bands round their waists to imitate sashes, straw hats knowingly turned up, and white shirts and frocks, long and tight trousers; and when they have a cane or umbrella in their hands they regard themselves—and rightly too—with no small amount of satisfaction. The women are also fond of smart attire, which, when added to great cleanliness of person, is a hopeful sign. They are not handsome, but they are pleasant in appearance. When bringing the products of the plantations for sale they dress in calico bodies and "lively patterned" skirts, with handkerchiefs tied around their heads, and suffered to fall negligently behind. Much of their time is spent in going to and from market. Just before Christmas they engage several boats, or "creers," freight them with rice, yams, plantains, &c., and having hired their husbands and others as sailors, convey their produce to Truxillo and Belize. They also walk long distances to their plantations, or in carrying their baskets of provisions to the nearest town. In the dry season the women collect firewood, which they stack in sheltered places to be ready for the wet months, industry and foresight being among the most marked characteristics of the race, and the plenty, cleanliness, and salubrity of their villages the consequent results. The Caribs have shown great capacity for improvement, though the rest of the Indian element is, if left to itself, rather hopeless, unless indeed as labourers. Above all, there is little to be made of the Sambos, the exceptions to the vile general rule being too few to do much more than prove it. They are very indolent, all the hardest labour having to be done by their wives. They are, however, skilful woodsmen, hunters, fishers, and boatmen. Captain Wright mentions that in his day—seventy years ago—the natives considered that in whatever service they might lose their lives, or die a natural death, their surviving relatives had a right to ask recompense from the employer of the dead man. It was regularly demanded even in battle. When satisfactory answers have not been given, the aboriginal troops have been known to retreat in a most dangerous and disorderly manner.* In Guatemala the Indians form a less hopeful element than

* Squier: "Honduras," p. 177.

in Honduras. There the opinion is very general that the present race of Indians are inferior in intelligence to the negroes, and indeed there are those who will scarcely credit that they are the descendants of the men who raised the monuments of Palenque, Uxmal, and Chichen Itza. But the same doubt might be expressed in the case of the Egyptian Fellaheen. Can *they* be the descendants of the builders of the Pyramids, or of those whose genius originated so much of what has descended to our times, though now strange to the country in which it grew into form? Or can the barbarous and crafty Moors of Morocco be the offspring of the brilliant Arabs who introduced chivalry, arts, and letters into so much of Europe? * The conquistadores at first expressed great admiration for the Indians, but it afterwards suited them to retract this favourable verdict, and under the plea that the *gente sin razon*—the race without reason—were an inferior order of beings, to oppress, degrade, and ill-treat them in every possible way, in spite of the numerous regulations enacted in the Code of Ordinances sent out by the Council of the Indies. In time the Indians, deprived of all opportunity of enjoying the privileges of subjects of Spain, or of sharing in the duties of such—forced to labour in the mines without wages or without a power of refusal—compelled to pay tribute, and subjected to humiliating punishments, and not allowed to bear arms, grew up to consider their lot one of contempt and pity, and themselves as inferior beings. The end was that they lost the virility of character which they possessed at the time of the Conquest, until it would not be possible now to restore their self-respect, “except through a series of efforts as prolonged as those which have humbled them have been continuous and implacable.” The conquerors were, meantime, nurturing their nemesis, or rather that of their children. In due time the latter became independent of the mother country; but in place of the citizens whom they sought in the Indians they only found slaves. They tried a new policy, but they tried it too late. M. Morelet tells a case which is painfully to the point:—“With a race endowed with an organisation moderately flexible, and with a rare perseverance in its habits and customs, it is easier to efface impressions than to substitute ideas, and the Indians at once rebelled against the efforts that were made to communicate them. In Guatemala, for example, the leading minds of the State conceived that the abolition of corporal punishment, so degrading to the spirit of man, would go far towards elevating the Indian character; yet, strange to say, as soon as the Indians themselves had succeeded in placing one of their representatives in the post of chief executive their first demand was for the restoration of the bastinado.” But they became citizens under the Republican Government, and theoretically at least on a par with their old masters. But they were not prepared for the change, and so far from contributing to the new order of things, rather aided in its retardation. No new ambition nor emulation was stirred within them, as the leaders of the revolution believed would be the case. All they comprehended or appreciated as to their new situation was that they were no longer under restrictions, and did not require to pay tribute. Thereupon they gave themselves to unrestrained drunkenness and general licence. For a time they did no work, and when called up to meet their obligations to the State, fled to the mountains, and in many cases relapsed into barbarism. In this way large villages, which in the colonial days were prosperous and peopled, became deserted. Roads fell into ruin, schools ceased to be attended, and by-and-by the civil

* Morelet: “Travels in Central America,” pp. 195.—196.

war and chronic revolution which have been, are, and will most likely continue to be the bane of Spanish America, followed the demoralisation of public sentiment and the prostration of material interests. This description applies particularly to the Indians of the *Tierras Calientes*. "Here each man cuts the timber for his own house, carries it on his back to the spot where he wants it, puts it together with withes, and thatches it with straw with his own hands. He cultivates just enough of ground to furnish his individual supplies, or gathers them from among the natural products of the forest. His scanty furniture is equally the work of his own hands, as is also the still scantier clothing



INDIAN, FROM THE COAST OF YUCATAN.

which he wears. When sick, he makes use of the few vegetable simples of which his father taught him the virtues, and which he collects in the wilderness. Time with him has no value, and without hope or care for the future, his idea of happiness is a present repose. His absolute material wants are his sole exertions to action. His vague ideas of fatalism furnish him equally with an excuse for his indolence and a basis of contentment under the circumstances of his condition. He supports stoically the maladies which may afflict him, and the evil fortunes that may befall him. Death almost always finds him prepared. 'My hour is come!' or 'I go to my rest; my work is done!' are the only observations which he makes on his approach." The "conversion" of the Indians is a mere farce. They used to be converted wholesale by the friars, but the process consisted of little more than baptism—a rite the meaning of which they had not

the most remote idea of—putting a tin cross about their neck, and asking them to abandon the outward forms of idolatry. But in so far as it had some connection with a purer life, or sounder views of the relations of man to man, or the creature to the Creator, the Indian might as well remain as his father was before him. He is a Christian in form, that is all. He is bred from his childhood upward in all manner of weird superstitions—the edifices reared by his father are to him objects of awe—they are the haunts of invisible spirits, relatives of that red spectre which sighs and wails in the forest to mislead the traveller, whose path is ever crossed by what looks to his eye as fawn-coloured animals, but which are, in reality, dreadful enchanters powerful always for evil, but never for good; or at least they never exert themselves in that way. Ask him as to his belief in the immortality of the soul, his hopes of a future life, or his views on the subject of a Supreme Being, and he will remain silent. He does not see whither your questions are tending, and long religious oppression has taught the art of dissimulation at such seasons; and

how golden is silence at all times! Yet his life is not an unhappy one, or, at least, might not be. In his own way he has all that he needs. At ten he is a better woodsman than most whites who have passed all their life in the country. He then accompanies his father in his excursions, or his labours. "He is taught," writes M. Morelet, "to find his way in the most obscure forests, through means of the faintest indications. His ear is practised in quickly detecting the approach of wild animals, and his eye in discovering



STATUE OF CHRISTOPHER COLUMBUS AT COLON.

the venomous reptiles that may lie in his path. He is taught to distinguish the vines, the juices of which have the power of stupefying fishes,* so that they may be caught by hand, as also those which are useful for their flexibility, or for furnishing water to the wayfarer. He soon comes to recognise the *leche Maria*, the precious balm with which he can heal his wounds, and the guaco † which neutralises the venom of serpents. He finds out the shady dells, where the cacao flourishes, and the sunny eminences where the bees go to deposit their honey in the hollow trunks of decaying trees. He learns, or is taught, all these things early, and then his education is complete. When he reaches the

* *Sapindus saponaria*, and probably also *S. inaequalis*. These berries are also used as a substitute for soap, the outer covering containing the principle known as *saponine* in sufficient abundance to produce a lather with water.

† *Aristolochia Guineo*.

age of sixteen or seventeen years, he clears a little spot of ground in the forest with the aid of fire and his machete. He plants it with maize, builds a little hut in the corner, and then brings to it a companion, most likely one who was affianced to him in his earliest infancy. Without doubt he has some regard to the age and attractions of his female companion, but his marriage, if the union can be so called, is based on none of these tender sentiments and mutual appreciations which, with us, lie at the foundation of the social superstructure. But it must be said to the credit of the Indian that he loves his home. His hut is his asylum, where he enjoys an authority and isolation which compensate for the contempt or the assumption of superiority of the whites." There no one interferes with his tastes or habits of life, and his children never dispute his authority, or contravene his wishes. Within his small circle his mode of life is essentially patriarchal. His Government, where he had one of his own, was the same. His food is simple—his general sobriety great. But both are owing to necessity; for when this is removed the Indian ceases to be an anchorite. Beans, tortillas, a few bananas, raw pepper for seasoning, beef cut in slices and sun-dried, a little pork, a few eggs on great occasions, and a cup of chocolate at long intervals, with such fruits as Nature herself offers, constitute the Guatemalan Indian's dietary curriculum. He lives a life devoid of excitement. His sensibilities are dull; his enjoyments are few; his griefs are rare; but neither affect him keenly. Time never weighs heavily on him; he keeps no account of it, and as a necessity does not understand that terrible disease of civilisation, for which the French could only invent a name—*ennui*. Yet, as we noted about the Mexican Indians, they are animated and loquacious when among their own people, though what they find to talk about in an unintermittent flow of words all day, and half through the night, has puzzled many a traveller, who only knew them previously in their impassive moods. In Yucatan, until comparatively recent times—though, I believe, not now—every Indian was compelled to cultivate about one-quarter of an acre of maize every year, under pain of having to work on the public roads until the estimated value of his labour equalled that of the average crop from the lands which they had failed to till. This was to guard against that idleness and improvidence of the native Indians which, in Central America, stand out in such marked contrast to the industry of many of the Caribs. But there was another and more barbarous mode of forcing the *gente sin razon*, to remember that man lives even in Central America by the sweat of his brow. This was a perpetuation of the ancient colonial law of the *mita*,* by which every coloured person—that is to say negro or Indian—was compelled to work out a debt as the absolute slave of the creditor, who, moreover, had the power of selling the debtor to any other person until the debt, either in whole or in part, was paid. The only privilege which the debtor had was that he could appeal to the authorities for a change of master, when he could show that the one he was then under was cruel, or did not properly provide for his necessities. The result of this abominable system was that the Indian, instead of trying to free himself, got deeper and deeper into his master's debt, until finally losing all care for the future, he and his family after him became the taskmaster's serfs for life. This was, of course, simply slavery in another form, and was perpetuated by the proprietors because it afforded a ready supply of labour at little cost. In some of the districts of the country as many as

* "Races of Mankind," Vol. 1., p. 318.

four-fifths of the Indians would in this manner be "compromised" to the leading proprietors, who, having all the authority and influence in the district, exercised it in a manner which renders the condition of the unhappy Indians pitiable in the extreme. The Indians of the higher plateaux of Central America are, as we have already seen, superior in intelligence, comfort, and general condition to those of the hot-lying coast lands. In the higher upland plains—*Los Altos*, as they are called—we find a more active race, descendants of the old city builders, "men whose heads never grow grey," and who have aspirations beyond supplying the immediate wants of the hour. They also supply mechanics to the country, and under proper care and a better system of education could rise to be useful citizens, or at least as useful as Central America is ever likely to have. The Indians of the other republics—so far as they affect the weal of the commonwealth, and of the Isthmus of Panama—I have already touched on, so that interesting as the discussion of their lot is, we cannot spare more space to this part of our subject. What is to be the future of these Indians? The whites dominate by dint of their superior intelligence, resources, and knowledge, and in virtue of the *prestige* which the Conquest gave them. But the white in Central America—as seems to be a law of nature in regard to the European who lives for long in the tropics—is deteriorating. Moreover, he is greatly inferior in number to the Indians, and is not increasing so rapidly as they are. Will a day come when the Indian will arise and re-assert his rights? That he could do so is certain. But that he has the patience—the staying power, so as to speak—necessary to accomplish this, is very doubtful. Above all, it is all but certain that he has not now the spirit. There have been rebellions of the Indians in Mexico, and even throughout Central America, in Guatemala especially, when Carrera and his savage hordes threw the country into a tremor. But I can hardly believe that there is much chance, at least in our day, of seeing such rebellions resulting in great things. Nor, infamously bad though the rule of the white man is in these regions, are there the slightest grounds for belief that the rule of the brown one would be an improvement. On the contrary, it could only result in bloodshed and anarchy.

If further proof were required of the identity of the race inhabiting Central America—at least the northern part with Mexico—it would be found in the shape of the monuments in both countries. In Guatemala, when Cortes traversed the regions in which they are chiefly found, there were no inhabitants, while in Yucatan there were found, from the island of Cozumal to the frontier of Peten and Tabasco, inhabited towns in numbers, which, to use Herrera's words, were "frightful to contemplate."* Yet the ruins of Yucatan are identical in architectural design with those of Guatemala. They are like them in their pyramidal bases, their absence of arched roofs, the use of stucco and painting in their decoration, the bas-relief cut on their walls, and in the resemblance between their hieroglyphic symbols. Again, the ruins of Yucatan are of the same nature as those of upper Mexico, which have been attributed to the Toltecs, so that it is not straining the argument too far to say that from Guatemala northward the "city builders" were of the same race. But the nature of these ruins, their appearance and

* "En todas las Provincias se han hallado tantos y tan grandes edificios de cantería que espanta."—Herrera.

general display, our space will not admit of describing, except in the general sketch already given. In Palenque are found the chief ruins of this description. Weird and strange they appear in the depth of the tropical forest, and when night falls over them the imagination can easily picture them, as do the Indians, as tenanted by the spirits of their early occupants. As if to afford a striking contrast between their past and present history, the ruins during the fine season are a favourite place of resort for the fashionable people of Santo Domingo, who establish themselves here to the great damage of the monuments, which bear many traces of the sojourn of these irreverential descendants of the *conquistadores*. "They suspend their hammocks under the shade of the majestic trees, and swing in them indolently, listening to the murmurs of the streams, and regaling themselves with the shell-fish which are found here in great abundance." Such is the description that M. Morelet, in disgust, gives of these sensuous disturbers of the pleasures of Palenquean imagination.

There are, however, still in Central America independent tribes of Indians, whom the "civilisation" of the whites—fatal gift—has never reached. Before leaving this part of our subject, we must devote a few lines to these interesting people. To the east of Peten are found the remnant of some of these tribes. They are the *Lacandones*, who roam over the unexplored Cordilleras, content to be left alone. The most daring of them will sometimes venture as far as the frontier to procure by barter some articles which they find themselves in need of. As a rule, however, they shun all intercourse with the whites, from whom they conceal themselves, watching their movements from their retreats in the mountains. They are still armed, as were their fathers, with bow and arrows, and so little accustomed are they to firearms, that the discharge frightens them as it did in the primitive days of their race. They are polytheists, and they are polygamists, with many of the weaknesses which attach to the love of many gods and many wives. They are remnants, for the most part, of the old stock of the *Lacandones*, to whom have gathered the broken fragments of Manches, Tcholes, Puchutlas, and other cognate tribes, who have chosen to abandon their ancient homes for the sake of freedom in the wilderness. Though the region which they inhabit has been penetrated in various directions by several ecclesiastico-military expeditions, yet it is at present almost as little known as some parts of Central Asia, or the interior of Africa. For more than a century and a half the inhabitants have ceased to be robbers, and at present only aim at isolation and independence. Their ambition is limited to being let alone. If they meet a white man they say to him nothing more than they can escape saying, and their business being concluded, they depart to their homes by obscure and unknown paths. M. De Waldeck met some of them, and gives an account of their habits, which are by no means pleasant. Their temples or places of worship are hidden away in the forest, at a distance from their villages. Here they perform their idolatrous rites after the custom of their ancestors. Their costume is the same with that of the figures on the bas-reliefs of Palenque and Ocosingo, while, according to M. De Waldeck, their moral state is so low that no dependence is to be placed on their assertions, unless taken in the name of their ancient demi-god Ballam. It is also whispered that cannibalism has not yet become extinct amongst them, even in the regions lying close to the Spanish settlement where the priests affect to have

"converted" them. They eat the great red monkeys called aliates. On being asked the reason of this practice, one of them replied, "Our ancestors killed and ate their



INDIANS TAPPING THE CAOUTCHOUC, OR INDIA-RUBBER TREE (*Siphonia elastica*).

enemies; but since the Spaniards, who are the strongest, have come, they do not allow us to continue this custom, and do not even permit us to eat what of right belongs to us—our children. Hence it is that we attack these little men of the woods, whose flesh

is equally good, and whom we are allowed to kill with impunity." But besides these Indians there is in the unexplored interior a large native population, having no relations either with the Indians or with the inhabitants of the towns, while the configuration of the country and their own ferocity prevent any one with a proper regard for what the surgeons called "continuity of tissue" penetrating into their fortresses.* The Itzaes, who for a century and a half established themselves on the island of Peten, in the charming Lake of Itza, where now stands the town of Flores, was also one of the tribes which for long maintained its own against the Spaniards. A retired place has always charms for the Central American Indian. M. Morelet describes him as jealous of his independence, and always concerned for the safety of what he possesses. He retreats before civilisation, and strives to conceal the results of his industry and skill in the heart of the forest. One sees with surprise that the lands around his villages are always uncultivated, and wonders where are the fields whence he draws his supply of provisions. They are often leagues away, in secluded and unknown localities; and should their owner conceive that they have in any degree diminished in fertility, or should he be disturbed in their possession, he does not hesitate to abandon them, and seek out a new and more secure place for his plantation.

POLITICAL LIFE.

They who have perused these pages must have come to the conclusion that in Central America a "strong government" is a rarity, and as it invariably is a despotism, hardly more to be desired than a weak one. For instance, as I write there comes news of a revolution among the Spanish negroes of San Domingo, at one end of Hayti; and, as if to keep the balance true, the curly-headed Frenchmen in the sable republic, at the other end of the island (Vol. II., p. 315), are engaged in the same improving occupation. President Baz has fled, General Somebody else has "proclaimed" himself, while President Boisrond-Canal is in very hot water at home. But why the Dominicans have sprang the political mine on which they always sit, or for what reason the Haytian patriots are bombarding Port-au-Prince, we do not know, and it is very questionable if they know themselves. The politics of tropical America are among those things which many have attempted to master, but nobody has yet understood. Baron Reuter does not enlighten us, and indeed states the fact in a languid telegraphic sort of way, with no expectation of exciting anybody short of a Haytian bondholder; and even they, having never received any interest for an indefinite period, can only receive the intelligence of their debtors killing each other with a faint gleam of hopeful satisfaction. Things are always at the worst in Hayti, and they never mend. The truth is that, to a time beyond which the memory of man runneth not, Hayti has always been in revolt against somebody, or on the eve of a revolution against something, and San Domingo amusing itself by chasing out one President and bringing in another. Revolutions in these regions are about as frequent as earthquakes, and almost as useful. Hence they pall on the intellectual palate, longing for political food less monotonous. Cuba has nominally closed for the time being

* "Voyage dans l'Yucatan," p. 42; also Squier: "The States of Central America," Chap. XXV.

a ten years' civil contest; Hayti has burst out into what the sporting prophets would call a "double event" of the same character; Colombia has emerged from a similar disturbance; while the States of Central America, after resting from the condition of utter exhaustion in which they put themselves in 1873, are again preparing to bombard each other's towns, cut each other's throats, and commit other crimes in the name of liberty. This is a fashion they have in Salvador, Guatemala, Costa Rica, Nicaragua, and Honduras. Anarchy is the normal condition of affairs; peace and good government the exception in these unhappy republics into which the great "Empire of the Indies" shivered. Nor are we aware that there are any "lessons" to be learned from this miserable state of affairs, though the doctrinaires have never wearied of attempting to extract a moral from these very immoral political failures. One wiseacre will prove entirely to his own satisfaction that the priests are the cause of all the trouble, while another will show as conclusively that it is the neglect of true religion that has brought this visitation of *pronunciamientos* on unhappy Hispano-America. Next we read a doleful little essay, showing that it is the poor Indian's untutored mind that cerebrates after this unpleasant fashion, only to be presented with another treatise intended to demonstrate that it is the neglect of the Ethiopian's unconquerable itch for voting and preaching which has brought his adopted country down to its nomally low political ebb. Finally, we have perused so many articles tending to show that the mammon of aristocratic unrighteousness is at the bottom of it all, that we might have been convinced, had we not at the same time been favoured with a pamphlet or two proving quite as clearly that Spanish America was a sad warning to all who imagined that a republic was the political millennium! The truth is far apart from any of these specious theories. The miseries of Spanish America are of a very old date; they originated in a condition of things in vogue prior to the liberation of the colonies; and the curse they are now suffering under is the *damnosa hereditas* which has descended to them from three centuries of misrule. What this was I have attempted to demonstrate in another place, so that I need only here sketch it out very briefly.

The Spaniard is at best not an estimable individual. He is polite, but his politeness is the embodiment of haughty contempt for a world not built up of hidalgos and grandees. It is, as a late British Consul in Barcelona reported, "the diamond ring on the dirty finger." No man will so grandiosely beg His Worship, the most excellent Señor, to consider his goods, house, and fortune at his disposal as the average Spaniard, and yet at the same time be more astounded if his mouthful of fine words be taken to mean more than a glass of lukewarm water and a bad cigarette (p. 24); while, if thwarted in the smallest thing, there lives not a ruffian who will curse more freely, or put a knife under another *Caballero's* fifth rib more deftly or with a statelier air, than Señor Don Camillo Guzman Miguel Pedrillo, whose family papers were, with such difficulty, saved at the Flood. When we first knew them the Spaniards were a poor race, easily conquered, but so treacherous that the "victorious Sixth Legion" was generally kept by its Roman commanders as far from Hispania and mischief as possible. The Arabs brought learning and art to Spain, and the Jews brought commercial knowledge. With the expulsion of the Moors, much of Spanish art left Spain, and with the Jews many a bright intellect that the country has since been sorely in need of. Just then the New World was discovered, and what Spain had lost in brains it gained in gold. For a time the

Mexican pistoles and the treasures of the Incas enabled the mother country to hire mercenaries, build ships, and bribe statesmen, and so maintain a hollow greatness. But when this artificial stimulus departed, then also faded away the tinsel "glories" of Spain. She sank down to the humble place intended for her in the economy of things, and became—as she is to this day and will continue to be—a conservatory for old customs, old ideas, quaint proverbs, narrow bigotry, picturesque peasants, old masters, and new wine. One thing has, however, never forsaken the Spaniard, and that is his courage: it is the birthright of his race. One almost stands aghast at the daring of the *conquistadores*—at Cortes, Pizarro, Alvarado, and the rest of them—and horrified at their cruelty. Their



INDIAN OF THE OLD AZTEC RACE.

courage was something hardly of this world, and their greed of gold and utter unscrupulousness surely the belongings of what in Parliamentary language is called "another place." Every man and woman in Spain lusted for "hawkbills" of the precious metal, and no danger, no hardship, scarce any crime, restrained them in their feverish desire to get it. If any such scruples stood in their way, there were always the shavelings in their train to urge them on for "the glory of God" and the "good of the Church." Twenty-two years after the settlement of Hayti, the Carib Indians were reduced in number from—it is said—2,000,000 to 14,000. They had perished in the gold mines—men, women, and children—for all were compelled to work. They had been slaughtered by arquebusiers, they had been torn by bloodhounds, or, weary of life, they had thrown themselves and their loads of ore over the precipices of the land they once owned, and now toiled in as slaves. In all Spanish America it was the same. In Peru, for instance, the land resounded with the melancholy song of the women bewailing the sad fate of their husbands and brothers, toiling in the silver mines, or wearing their lives away in the *mita*. Mothers maimed their children so that they might not be delivered to the tormentors, while the priests inflicted 100 blows of a whip

on any one who married an idolater, so careful were the *corregidores* and the *padres* to get the most out of the red men's bodies and souls. A knight was wounded in Guiana, and the surgeons, to see how far the lance might have penetrated, equipped an Indian in the knight's armour, as a target for the spearmen. Afterwards they probed the wounds, and made their diagnosis. Such was the use they made of those whom Sir Walter Raleigh described as "a naked people, but valiant as any under the skies." When the Indians were all but killed off, negroes were imported, and the importers thus unconsciously brought a Nemesis,



INDIAN WOMAN OF THE OLD AZTEC RACE.

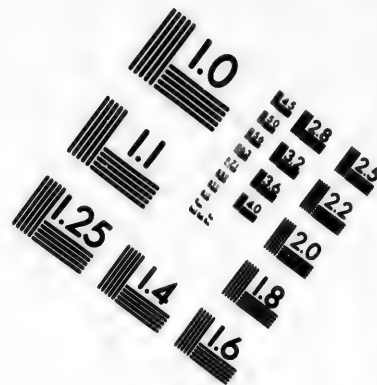
which was to work them vengeance. Nor were they particular as to the colour of their slaves. A trader who could not get black men took brown ones, as was the fashion of the day. Francis Sparrow bought—as it has been my unpatriotic duty to relate elsewhere—to the southward of Orinoco, eight beautiful young women, the oldest not eighteen years of age, for a red-handled knife, the value of which was in England, at that time, but one halfpenny."

Nor were the colonists treated much better. Everything was reserved for Spain and men of Spanish birth. The Greek theory of colonies—that they were solely for the benefit of the mother country—prevailed. No creole—that is, Spaniard born in the country—could hold any office. Every post in the gift of the king was put up to auction in Madrid, and sold to the highest bidder, who, of course, made what profit he could out of his investment in official stock. No foreigners were allowed to trade with the colonies, and, as a consequence, buccaneering and smuggling went on wholesale. Any foreign sailors

wrecked on the shores were treated as pirates. The colonists were discouraged from communicating through the medium of letters; newspapers were almost unknown; and intercourse between the different colonies was as far as possible prevented, in case the creoles might plot against old Spain. They had, moreover, few opportunities for education, and were oppressed by the most villainous of taxes. Any person, for instance, not in possession of a *Bula de Confesion*, lost all rights as a citizen, or even as an individual, while justice was bought and sold. Three centuries of such oppression and misgovernment did its work so thoroughly that when the colonists, in the hour of Spain's adversity, threw off her yoke, they found the bulk of the people unfitted for self-government, and, least of all possible governments, for that which they adopted. They had been so long kept in ignorance, that they absolutely retained most of the worst laws of old Spain. In nearly all the colonies there was no religious toleration, and in few of them were foreigners allowed to settle or trade freely. So long had they been isolated from each other, that the mutual jealousies which had grown up prevented their leaguings together for the common weal. On the contrary, they split up into numerous rival republics, which have disintegrated more and more ever since. There have been continual wars of races—the Spaniard, the negro, and the Indian having each in his turn gained the upper hand, and tyrannised over the country. Public spirit is unknown, self-sacrifice for the public good a mere theory, and the greed of place and pelf all-powerful. Central America is perhaps the worst of all of these governments; Chili perhaps the best; but even Chili, though hopeful, is as yet an unsolved problem in politics. But there is really very little to choose among them. Added to this is the prevalence of the most ludicrous self-conceit, and a haughty arrogance which now and then takes the inconvenient form of insulting the consul of some great power. A President is elected, but no sooner is he inaugurated than his rival issues a *pronunciamiento*, and tries to displace him by force. In Venezuela—which in a short time we shall visit—a minister of the Republic congratulated Congress that there had been *only seventeen* revolutions within the year. Sometimes the soldiers take the election into their own hands; at other times they try a Dictator, and, very often without trying for it, anarchy pure and simple prevails. Then arises some such scourge as Rafael Carrera, an Indo-negro mongrel, at whose name Guatemala trembled for years (p. 24). This individual has more than once appeared in these pages. He was certainly one of the most remarkable men whom Central America has produced, and in some respects one of the greatest. Yet he was a terrible politician, and, like Henry VIII., “an expensive Herr.” A traveller, writing in 1847, thus describes his appearance in the market-place of Guatemala:—“All at once the guard at the *cuartel* beat to arms, and the reclining soldiers leap up, seize their muskets, and range themselves stiffly along the front of their quarters. We look to see the occasion of the sudden movement, and observe approaching a man of medium height, still young, with coal-black hair and tawny complexion, who moves slowly up the arcade which leads to the house of the government. He is President Rafael Carrera, that redoubtable Indian who has overthrown the authority of the Spanish race, and who now represents the national power of the State. He is dressed in ordinary costume, without any distinctive insignia of authority. The swarm of sinister men who surround him, and whom you mistake for lacqueys, are the aids of his Excellency—sad fellows,

who have emerged, like himself, from the lower orders, bound to his fortunes, and who, to retain favour, are ready to perform any kind of service. The President marches in silence, his head bent forward, and his eyes fixed on the ground, without responding to the salutations of those whom he meets, and disappears in the palace." Yet, that Carrera was no ordinary man is proved by the fact that, though uneducated, and without any political experience, he managed to retain the power won by his sword longer than most Central American Presidents, and even in 1854 got himself declared *Presidente Vitalicio*, or President for life, with power to name his successor. His titles, as printed in official reports, used to be, "His Most Excellent Señor Don Rafael Carrera, President for Life of the Republic, Captain-General of the Forces, General of the Treasury, Commander of the Royal Order of Leopold of Belgium, Honorary President of the Institute of Africa, decorated with various insignia for actions in war," &c. &c. For long he refused the Presidency, alleging his want of education, and the incompatibility of his habits with the lofty position to which his sycophants wish to raise him for their own advantage, or his enemies, in order that they might make a tool of him and work his ruin. He, however, finally yielded, retaining, nevertheless, to the last his round jacket and straw hat. He was active, unscrupulous, and obstinate, but though taciturn in his humour, and violent and sanguinary when roused, yet those who knew him best declare that this terrible man was not without a "qualified generosity," and that he used his power with more moderation than might have been expected from his antecedents. His origin was, like that of Rosas, the quondam Dictator of Buenos Ayres, exceedingly humble. Indeed, their enemies declare that they were dismissed from the employment of their masters for conduct which could in no way add to their reputation. Profiting by the disturbances of the country, Carrera, at the head of his Indians, and Rosas, at the head of his *ganchos*, both commenced their career by the invasion of the capital, and this piece of audacity being successful, they both rapidly rose into power. Rosas was, however, a man of far greater grasp than Carrera, and as a diplomatist did work which the Indian could never have been capable of had he been called upon to perform it. In 1840, General Morazin, having failed to wrest Guatemala from Carrera, had to flee with the majority of his forces, leaving 200 men in the Plaza to hold the enemy in check and cover his retreat. Next morning, after a spirited resistance, they were forced to lay down arms: then, trusting to the conventionalities of war, they were indiscriminately slaughtered. Their commander was brought before Carrera and Paez, his satellite. "They both fell upon him with blows, struck him to the ground, and forced their horses to trample on him, horribly mangling his body, while he vainly supplicated for death. Finally, Paez handed his own lance to one of the assassins in his suite, who drove it through the heart of the unfortunate man, and released him from further barbarities." This nightmare of Guatemala was murdered soon after attaining supreme power—having held authority for eleven years (1854-1865)—in the interests of the Indians, the worst of the aristocracy, and the priests, whose slave he was. When Canning boasted that he had "called a new world into existence to redress the balance of the old," he did not calculate on also "calling into existence" the Rafael Carreras, and other citizens of that stamp, who, to copy the reply of the Viscount Cormerin to the Parisian Deputation in 1836, "flattered themselves they had suppressed rain because they had abolished gutters."





A resolution test chart featuring various patterns of horizontal and vertical lines of increasing frequency. Each pattern is accompanied by a numerical value indicating its resolution. The values include 1.0, 1.1, 1.25, 1.4, 1.6, 1.8, 2.0, 2.2, 2.5, 2.8, 3.2, 3.6, 4.0, 4.5, 5.0, 5.6, 6.3, 7.1, 8.0, 9.0, 10, 11.2, 12.5, 14, 16, 18, 20, 22.5, 25, 28, 32, 36, 40, 45, 50, 56, 63, 71, 80, 90, 100, 112, 125, 140, 160, 180, 200, 225, 250, 280, 320, 360, 400, 450, 500, 560, 630, 710, 800, 900, 1000, 1120, 1250, 1400, 1600, 1800, 2000, 2250, 2500, 2800, 3200, 3600, 4000, 4500, 5000, 5600, 6300, 7100, 8000, 9000, 10000, 11200, 12500, 14000, 16000, 18000, 20000, 22500, 25000, 28000, 32000, 36000, 40000, 45000, 50000, 56000, 63000, 71000, 80000, 90000, 100000, 112000, 125000, 140000, 160000, 180000, 200000, 225000, 250000, 280000, 320000, 360000, 400000, 450000, 500000, 560000, 630000, 710000, 800000, 900000, 1000000, 1120000, 1250000, 1400000, 1600000, 1800000, 2000000, 2250000, 2500000, 2800000, 3200000, 3600000, 4000000, 4500000, 5000000, 5600000, 6300000, 7100000, 8000000, 9000000, 10000000, 11200000, 12500000, 14000000, 16000000, 18000000, 20000000, 22500000, 25000000, 28000000, 32000000, 36000000, 40000000, 45000000, 50000000, 56000000, 63000000, 71000000, 80000000, 90000000, 100000000, 112000000, 125000000, 140000000, 160000000, 180000000, 200000000, 225000000, 250000000, 280000000, 320000000, 360000000, 400000000, 450000000, 500000000, 560000000, 630000000, 710000000, 800000000, 900000000, 1000000000, 1120000000, 1250000000, 1400000000, 1600000000, 1800000000, 2000000000, 2250000000, 2500000000, 2800000000, 3200000000, 3600000000, 4000000000, 4500000000, 5000000000, 5600000000, 6300000000, 7100000000, 8000000000, 9000000000, 10000000000, 11200000000, 12500000000, 14000000000, 16000000000, 18000000000, 20000000000, 22500000000, 25000000000, 28000000000, 32000000000, 36000000000, 40000000000, 45000000000, 50000000000, 56000000000, 63000000000, 71000000000, 80000000000, 90000000000, 100000000000, 112000000000, 125000000000, 140000000000, 160000000000, 180000000000, 200000000000, 225000000000, 250000000000, 280000000000, 320000000000, 360000000000, 400000000000, 450000000000, 500000000000, 560000000000, 630000000000, 710000000000, 800000000000, 900000000000, 1000000000000, 1120000000000, 1250000000000, 1400000000000, 1600000000000, 1800000000000, 2000000000000, 2250000000000, 2500000000000, 2800000000000, 3200000000000, 3600000000000, 4000000000000, 4500000000000, 5000000000000, 5600000000000, 6300000000000, 7100000000000, 8000000000000, 9000000000000, 10000000000000, 11200000000000, 12500000000000, 14000000000000, 16000000000000, 18000000000000, 20000000000000, 22500000000000, 25000000000000, 28000000000000, 32000000000000, 36000000000000, 40000000000000, 45000000000000, 50000000000000, 56000000000000, 63000000000000, 71000000000000, 80000000000000, 90000000000000, 100000000000000, 112000000000000, 125000000000000, 140000000000000, 160000000000000, 180000000000000, 200000000000000, 225000000000000, 250000000000000, 280000000000000, 320000000000000, 360000000000000, 400000000000000, 450000000000000, 500000000000000, 560000000000000, 630000000000000, 710000000000000, 800000000000000, 900000000000000, 1000000000000000, 1120000000000000, 1250000000000000, 1400000000000000, 1600000000000000, 1800000000000000, 2000000000000000, 2250000000000000, 2500000000000000, 2800000000000000, 3200000000000000, 3600000000000000, 4000000000000000, 4500000000000000, 5000000000000000, 5600000000000000, 6300000000000000, 7100000000000000, 8000000000000000, 9000000000000000, 10000000000000000, 11200000000000000, 12500000000000000, 14000000000000000, 16000000000000000, 18000000000000000, 20000000000000000, 22500000000000000, 25000000000000000, 28000000000000000, 32000000000000000, 36000000000000000, 40000000000000000, 45000000000000000, 50000000000000000, 56000000000000000, 63000000000000000, 71000000000000000, 80000000000000000, 90000000000000000, 100000000000000000, 112000000000000000, 125000000000000000, 140000000000000000, 160000000000000000, 180000000000000000, 200000000000000000, 225000000000000000, 250000000000000000, 280000000000000000, 320000000000000000, 360000000000000000, 400000000000000000,

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Hayti, for example, has essayed every form of government on earth, and the Spanish republics almost every one short of a king, though even that form of ruler has a "faction" which now and then gets the upper hand, and (as in Honduras) burns the capital, assassinates the President, while it in no case neglects to rob the Treasury when—rare chance—there is anything in it. Finally, these experimenters at government discovered the art of robbing verdant Europeans. This they pleasantly called "borrowing," but as they never paid either principal or interest, some irate gentlemen in Capel Court and elsewhere feel how insufficient is the English language to express their opinion of the transaction. What is to be done with such countries? They are rich, but their riches are useless. They are on the high-road of commerce, but vile laws, political knaves, venal custom-houses, factious and corrupt officials, cause commerce to avoid them. They borrow, but will not pay; they are insolent, and yet have nothing through which to punish them. Annex them? One might as well talk of annexing a nest of rattlesnakes. San Domingo has changed her nationality at least six times in seventy years; has always had to come back to independence; and at present can get nobody to look at her with intentions honourable or dishonourable. Earthquakes are pretty active in these regions, and the tornado sometimes lively. But, somehow or other, they never altogether annihilate these homes of revolt, and the sanguine newspaper reader always relapses from cheerful hopefulness back into his pristine condition of despair. The problem of what is to be done with half of Spanish America is insoluble, and that involved in the future of the other half doubtful. Perhaps the fate of the historical cats of Kilkenny may afford an approach towards its solution? This may be, no doubt, set down as prejudice: in that case, I can only urge the melancholy words of the great Liberator Bolivar, that the people for whom he had striven were strangers to virtue, and that he had wasted his life in ploughing and sowing the waters of the ocean!

SOCIAL LIFE.

Any general description of Central American society—that is, social life among the Europeans and people of European descent—could not be well given in the space at our disposal, and, indeed, has already been partially sketched under the head of the individual States. Still there are certain features common to the whole country. These are intense languor, exceeding exclusiveness, and a superficial politeness which, to the freshly-arrived stranger, who knows how to take it, is wondrously pleasant. Take Panama, for example. There life if not a burden is not lightly borne. It is too hot for active out-door life; and a ride, walk, or drive can only be taken when the road will admit of it, in the cool hours of the day, early in the morning, or in the evening. Reading, that resource of dull places elsewhere, becomes, as Mr. Bidwell justly remarks, in time scarcely possible. The resident begins the day half tired, and the book surely sends him to sleep. There is also scarcely anything of what is known elsewhere as "society." The foreigners associate little among themselves, and just as little among the natives. The Panameños are exceedingly reserved, and visits are carried on with such an amount of ceremonious etiquette that to most people they get fatiguing; while the young men of the place, even those who have been educated abroad, prefer the amusements of dirty *cafés* and billiard rooms to the society of their sisters and lady friends. Sometimes a ball is got up, when anybody has energy enough to take

the requisite trouble. Then a pretty collection of young ladies make their appearance, with gentlemen to match. But for months afterwards—unless, indeed, at an early mass—the latter will have little chance of ever seeing one of the former; and, indeed, begin by wondering where they all came from, and end by being puzzled where they have all gone to. Yet, in most Spanish countries access to society is not difficult. In Panama, however, there are circumstances which make the people draw within themselves. Panama is the high road to every place, and the halting-place of many adventurers whom experience



PECCARIES (*Dicotyles torquatus*).

has taught the natives to regard with profound suspicion. This suspicion they almost instinctively visit on those who do not deserve it, until in time the natural Spanish pride and reserve have become what it is in the isthmus. The morality of women of Spanish descent does not rank high in public esteem. But this generalisation has been founded on the hasty observations of passing travellers, who, forgetting that birds of passage do not always see the best of any country, but only that portion which lies nearest to their path, make sweeping conclusions from their very imperfect premisses. The Panameños, as a rule, are graceful, pretty, and lady-like, affectionate daughters, good wives and mothers, and industrious, we are told by Mr. Bidwell, "to a degree which is little credited by foreigners even long resident in Panama. I have known whole families almost supported by the needlework of the daughters of the household; yet these girls were none the less young ladies; they saw only the merit of their work; it did not make them descend to the scale

of the *couturière* in Europe. Considering the little means of education available for the better class of girls in Panama, there being no private schools, and few persons capable of teaching, there is much to be said in praise of the industrial and economical habits of the Panameños in the higher walks of life." The poorer classes are, however, poor, but *not* honest. Marriage among them is the exception and not the rule: this ceremony they look upon as something reserved for their betters—for the Señoras and the Ninas*—and hardly befitting humble folks' ways of life. The dress of the Panama ladies is now very much the same as that of their sisters in Paris. Even the pretty custom of dressing the hair with flowers when they walked in the street has, like the *Saya i manta* of the Limeña, almost passed away in these degenerate days. The native labourer wears only cotton or linen trousers and shirt, and generally no shoes, but the girls are rather fond of finery. The ordinary dress is the *pollera*, made without sleeves, and low in front, with lace trimming on the bust. They invest all their savings in jewellery, such as charms and ornamental hair-combs, to be worn on gala days, and then pawned when they are in pecuniary trouble. Mourning is very popular, though black dresses are, of all garments, the most unsuitable for a hot climate. There is almost no recreation except cock-fighting and bull-teasing. This is not bull-fighting, for the wretched animal is only let loose in the street, or led by a cord, and teased by its hirers, though it rarely does any harm, being well held in check by the tormentors. To hire such an animal from a butcher is considered a delicate attention from a young man to his sweetheart on her birthday. To teach them a rough lesson, an American in Panama once let loose a bear, which he had got from California, and on being remonstrated with, he replied that he did not see why he should not celebrate the birthday of his child after his own fashion, even though his "bar" should make the Panameños take to their heels a little quicker than their bull did. Cock-fighting is a common pastime among the more dissolute priests and the lower orders on Sundays and holidays. Fighting cocks are common objects of the country; they can be seen tied to nails at the owners' doors, and with grey parrots seem the chief domestic pets. The Central American Spaniard of to-day has little of the spirit of the conquistador in him. He has little or no enterprise, not very much courage, though some ferocity, and even the old lust of gold, which distinguished his ancestors, has given place to a craving for change, and an unwearied love of dabbling in tiresome politics, which few people in the country seem to thoroughly understand the rights and wrongs of, and which assuredly nobody outside it cares to probe to their muddy depths.

CHAPTER V.

CENTRAL AMERICA: NATURAL PRODUCTIONS.

IN the course of the foregoing pages various remarks have been made on the different natural productions of the region. But this is a subject on which volumes could be written,

* In Panama, the term *Nina*, or young lady, is applied alike to married and unmarried ladies, just as *Señorita* is in Peru. *Señora* is applied to more elderly ladies.

and, indeed, have been written, so that we can only devote a few lines more to noting some of the chief economic plants and a few of the more remarkable animals which are characteristic of Central America, referring the reader for fuller accounts to the works already quoted.

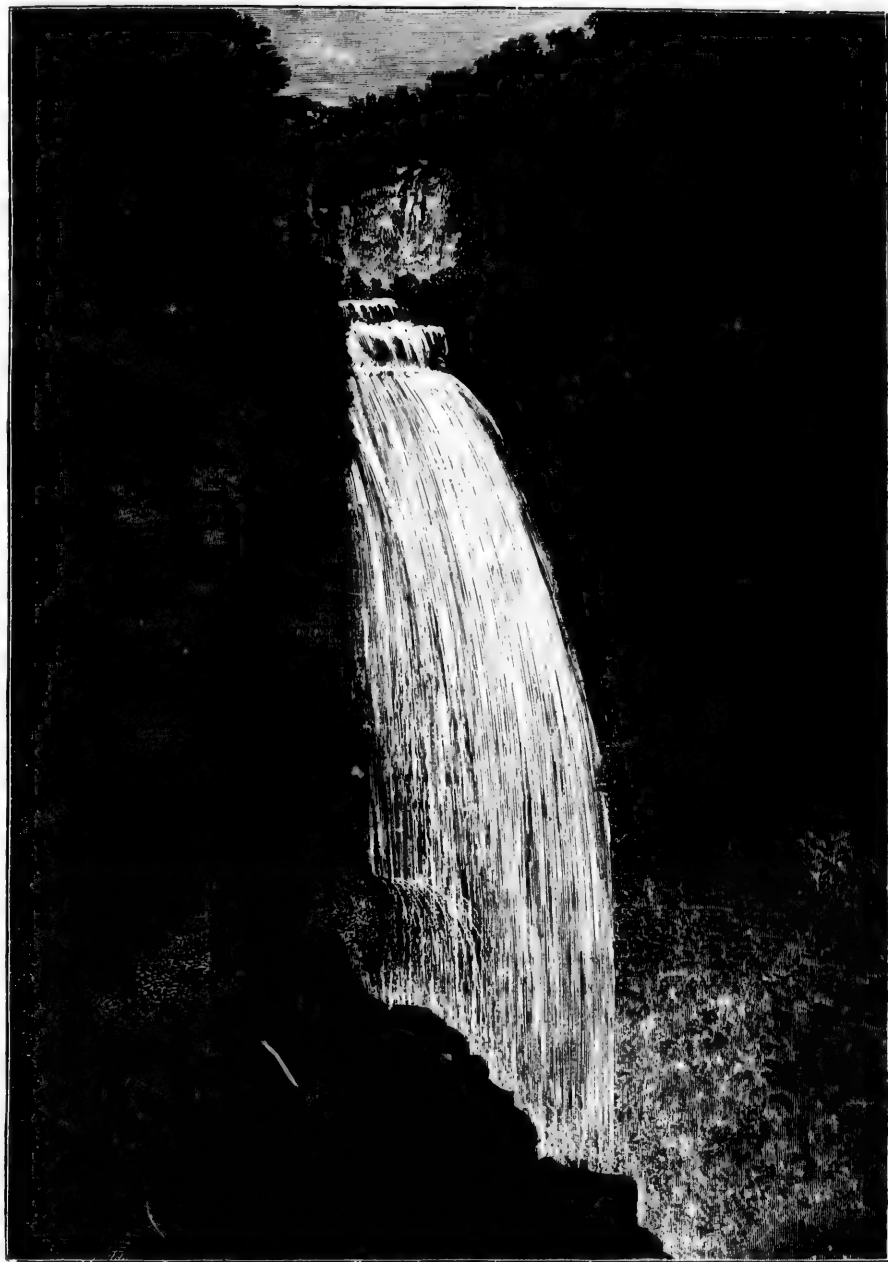
The logwood—the *palo de tinta* of the Spaniard—the *Hæmatorylon Campechianum*, is one of the most valuable trees of Central America. Under favourable circumstances it grows to a height of from thirty to forty feet. Its appearance is peculiar, the trunk being gnarled and full of irregular cavities, while its pinnated dark green foliage and small yellowish flowers, which hang in bunches from the ends of the branches, add to the peculiarity of this famous dyewood tree. It grows in impenetrable thickets, and when it once takes up its abode, it monopolises the forest, no vegetation prospering under its shade. It grows rapidly, but at the same time is jealous of being artificially treated, as the numerous failures in the attempts to neutralise it in the Bahamas and other islands have proved. It is the heart-wood which is used in commerce, the sap or outside wood being of a yellow colour, the dye, however, yielded being not dark red, like that of the Brazil wood (*Casalpinia*), but black, shading on purple. In the forests where it is found it is usually cut in the vicinity of a stream, down which the logs can be conveyed. But there is a total absence of care or efficient economy in hewing it, all the proprietor caring is that he should secure a sufficient quantity. Accordingly, the chopper, who receive so much money for so much wood delivered at the port of embarkation, hews down what he can and how he can, without the slightest care for the future. The *mayoral*, or agent, rejects all billets marked with orange spots, which are indications of decay, and then has the remainder weighed in his presence and the amount duly credited to the collector or chopper. The *mayoral* is a gentleman who does not court popularity, knowing that popularity with his labourers is only consistent with allowing them to neglect their work and indulge in their natural laziness, and thus abridge his profit, for he is paid a percentage on what he can collect for his principal. Moreover, as the labourers are always in debt to their employer, they do not go about their work with any zest, and are only too apt to avoid their liabilities by levanting after they have got sufficiently deep in the books of the logwood merchant to make this exertion worth their trouble. The wood is cut down and barked with an axe, the Indian declining, with his usual conservatism, to substitute a saw for their old-fashioned implement. Also, to avoid the knot and protuberances of the lowest part of the trunk, they cut down the tree above a yard from the ground, leaving an excellent part of the stump still standing to rot in the ground, since it is well known that this mutilated portion will never send out shoots again. At this rate the logwood will soon become a rare tree. The tree is cut during the dry season, and then when the rivers rise during the rains, the accumulated stock is transported to the coast, though in certain favoured localities the cutting and despatching of it to the ports goes on the whole year round. Of course by the construction of roads and canals, in the greater number of cases, the traffic might be made constant, but in Central America the inhabitants usually prefer to wait on Providence to exerting themselves in any new-fangled enterprises of this description. If a method could be devised whereby the logwood would cut itself and jump on board the ships, the proprietors might be inclined to listen to the project, but in a land where *Crianza quita labranza*—rearing cattle relieves one of labour—

is the characteristic proverb, anything in the shape of exertion is not very likely to be popular.*

Rosewood (*Dalbergia*), lignum vitæ (*Guaiacum*), fustic, yellow sanders (*Bucida capitata*), Brazil wood, a kind of dragon's blood (*Ecastaphyllum monetaria*), Nicaragua blood (*Cæsalpinia echinata*), and the Anotta (*Bixa Orellana*) may be mentioned as among the other valuable dye and other woods found in this region. The gum arabic bush abounds in all the open savannas, and in the forests may be found the copaiba gum, the copal bush, the liquid amber, palma christi, ipecacuanha, and caoutchouc tree (*Siphonia elastica*), from which india-rubber is obtained by "tapping," or making incisions in the trunk of the tree (p. 69); while the long-leaved pitch pine covers many parts of country, more particularly the elevated portions of Honduras, from sea to sea. The cedar, which attains a height of from seventy to eighty feet, is extensively used for all purposes where immunity from the attack of insects is of any importance. The ceiba, or silk-cotton tree (*Eriodendron anfractuosum*), grows to a vast size, and is used for many of the common "bongos" and "pitpans." Some of them hollowed from a single trunk will measure "in the clear" seven feet between the sides. Live oak, Santa Maria (*Calophyllum Calaba*), sunwood, sapodilla (*Sapota Achras*), calabash, mangrove grape tree, iron wood, calabash button wood, mahoe locust, polewood almond, granadillo, many different kinds of palms, bamboos, &c. &c., are more or less abundant through Central America, while among fruits the lime, lemon, and orange are well known and extensively cultivated. Pimento, cacao, sarsaparilla, vanilla, and other staples need only be mentioned as a specimen of the various tropical crops not already touched on. The animals are much "too numerous even to mention." The dog is native, but the horse, ass, ox, sheep, goat, hog, and cat, are all importations. The horse of the country still retains some of the Arab characteristics of his ancestors, but in Central America his lot has not fallen in pleasant places. A plague of insects enters his ears, bats bite him, and spiders attack his feet, so that the hoof separates. Deer, the peccary (p. 77), tapir, manatee, monkeys of many species, racoons, opossum, squirrels, and bats, armadillo (three species), the Indian coney, or agouti (p. 44), the jaguar, and many species of birds and reptiles which, as their names may be unfamiliar to the reader it is useless giving, are among the wild fauna of the country between Mexico and Panama. Last of all, it need hardly be added that insects are numerous and of many species. They are a terrible pest to the traveller, fully justifying Sydney Smith's well-known description, when he characterised insects as "the curse of the tropics. The *bete rouge* lays the foundation of a tremendous ulcer. In a moment you are covered with ticks. Chigoes bury themselves in your flesh and hatch a large colony of young chigoes in a few hours. They will not live together, but every chigoe sets up a separate ulcer, and has his own private portion of pus. Flies get entry into your mouth, into your eyes, into your nose. You eat flies, drink flies, and breathe flies. Lizards, cockroaches, and snakes get into the bed, ants eat up the books, scorpions sting you on the foot. Everything bites, stings, or bruises; every second of your existence you are wounded by some species of animal life that nobody has seen before, except Swammerdam and Meriam. An insect with eleven legs is swarming in your tea-cup, a nondescript with nine wings is struggling in the small beer, or caterpillar with several dozen eyes in his belly is hastening over the bread

* Morelet: *ib. cit.*, p. 118 et seq.

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VIEW OF THE WATERFALL OF TEQUENDAMA, BOGOTA, COLOMBIA.

and butter! All Nature is alive, and seems to be gathering all her entomological hosts to eat you up as you are standing, out of your coat, waistcoat, and breeches. Such are the tropics. All this reconciles us to our dews, fogs, vapours, and drizzles, to our apothecaries rushing about with gargles and tinctures, to our old British constitutional coughs, sore throats, and swollen faces."

CHAPTER VI.

SOUTH AMERICA: COLOMBIA; ECUADOR.

WE have now left the comparatively narrow neck of land connecting the two great divisions of the New World, and in succeeding chapters of this volume will concern ourselves solely with South America. Before, however, entering on a more detailed account of the different political divisions, it may be well to briefly indicate some of the great physical features of this region. At the same time, it will be difficult to give any general account of a region so extensive, in so far that what might be true of one portion would be far from the truth in regard to another. Accordingly, it may be best to hinge the greater portion of our general remarks regarding the geography and products, as well as the climate and governments, of South America, upon the different Republics and the Empire to be described, more especially as these political divisions are not unfrequently divided off from each other by very natural boundaries. Looking, then, at South America as a whole, we find it a peninsula, triangular in shape, leading an observer to suspect that at some former period a greater amount of land stretched to the east, and that probably the rocks known as Martin Vas, Trinidad, and Columbus, and even the Falkland Islands, are the remains of this slice taken away from the Atlantic shores of the continent. And here we may remark that very little doubt can exist that at one time the Pacific shores of both North and South America extended much further to the westward, though with such speculations we need not at present concern ourselves. The present land mass is in length, from north to south, 4,550 miles, while its greatest breadth—namely, from the northern point of Peru to the extreme eastern extension of Brazil—is about 3,200 miles. It covers an area of some six and a half million square miles, about one-fourth of which is in the temperate zone and the remainder within the tropics. Taking the configuration of its surface as the basis of the classification, this great region is usually divided into five great regions. These are: (1) The region skirting the shores of the Pacific. This country is in general low, from 50 to 150 miles in breadth, and 4,000 miles in length. The two extremities are fertile, while the middle is a sandy desert. (2) The basin of the Orinoco river, a country mainly consisting of plains or *steppes*, called *llanos*, either destitute of wood or only dotted with trees, but covered with a tall herbage during a part of the year. Fat, lazy cattle pasture here in thousands, as shown in the familiar scene figured on Plate XXIII. Here we see the animals half buried in herbage, or dozing under the shade of the broad-leaved *Morichi* palms (*Mauritia flernosa*), placidly allowing the insectivorous hawks to pick out the tick-like

parasites called *garrapatos*. This is a favourite occupation of these birds, hence they are well known as *garrapateros*. In this region the heat is intense, especially during the dry season, when the parched soil cracks into long fissures, in which lizards and serpents lie in a state of torpor. The Orinoco is 1,800 miles in length, while the area of its basin is 400,000 square miles. (3) The basin of the Amazon, a vast plain of more than 2,000,000 square miles, forming a rich soil and humid climate. It is everywhere covered with dense forests, in which live innumerable wild animals and a few savages, who subsist by hunting them and fishing the waters of the river and its tributaries. (4) The region of the Pampas. This section comprises the great southern plains watered by the Plata and the numerous streams descending from the eastern summits of the Cordilleras. The Pampas, or South American Prairies, occupy the greater part of this region. They are dry, and in some places barren, but in general are covered with a rank growth of weeds and tall grass, on which feed prodigious numbers of horses and cattle and the few wild animals which can find a shelter in its scanty herbage. (5) The country of Brazil eastward of the Parana and Uruguay, "presenting alternate ridges and valleys, thickly covered with wood on the side next the Atlantic, and opening into *steppes* or pastures in the interior." The great range of the Andes, which may be classed as the southern continuation of the Rocky Mountains, is the chief mountain system of South America, and extends almost from Cape Horn to the Isthmus of Panama, running approximately in 72nd meridian of longitude during the whole of that immense distance, like the Rocky Mountains, always much nearer the Pacific than the Atlantic. They thus form a great rampart, having an average height of 11,000 to 12,000 feet, and a width varying from 20 to 300 or 400 miles. "In most places the chain rises to heights of several thousand feet, and upon this chain rest two or three principal ridges of mountains enclosing lofty plains or valleys, separated one from another by mountain knots, which mark the spots where ridges belonging to different systems intersect. In one sense, the lofty plains of the Desaguadero, Quito, and others are valleys, since they are encompassed by mountains, but in a certain sense they are plateaux, since they form the broad summit of the range or platform on which the bounding ridges themselves stand."* There are three transverse ridges which pass eastward at almost right angles to the main chain, thus forming the three natural areas of the Orinoco, Amazon, and La Plata basins. They cross the continent in the parallels of 18° south and 4° and 9° north. The first, or most northern, is the Cordillera of the coast, which terminates at the Gulf of Paria. The second is the Cordillera of Parimè, or, as Humboldt calls it, the Cordillera of the Cataracts of the Orinoco; it divides the waters of the Orinoco and the rivers of Guiana from the Amazon basin, and is covered with magnificent forests. It terminates in French Guiana, at no great distance from the mouth of the Amazon. On a table-land, which forms part of this chain, in about the 67th degree of longitude, the Cassiquiari forms an intermediate channel, which connects the rivers Orinoco and Negro, so that during the floods a part of one river flows into the other. The third transverse chain is that which extends almost as far as Santa Cruz, in the vicinity of the river Mamore. "South of this range," writes the author of the admirable article we have quoted, "are a

* Article "America," "Encyclopædia Britannica," 9th edition.

number of ridges having an east and west direction, an average height of about 10,000 feet, and terminating in the plain near the Paraguay. This country, which divides the waters of the Amazon from those of the Plata, is a broad plateau of elevated land rather than a distinct mountainous ridge, and consists of low hills or uneven plains with very little wood, presenting in some places extensive pastures, and in others tracts of a poor sandy soil. Its average height does not exceed 2,000 or 3,000 feet above the level of the sea. The mountains of



THE GREAT "ELEPHANT'S EAR" OF COLOMBIA (*Begonia magnifica*).

Brazil, which are of moderate height and occupy a great breadth of country, form an irregular plateau, bristled with sharp ridges running in a direction approximately parallel to the eastern coast, connected by offsets running in a more or less eastern and western direction. They extend from 5° to 25° south latitude, and the extreme breadth may be about 1,000 miles. Between Victoria on the north and Morro de St. Martha on the south, a range with numerous curves lies a little way back from the coast, and is for the greater part of its length known as the Sierra do Mar. Somewhat further inland is a higher range, the different parts of which have various names, but it is best known as the Sierra de Mantiqueira. It

contains the highest peaks in Brazil, amongst which may be mentioned Mount Itacolumi, famous for the gold and diamond-yielding strata in its vicinity; the Pico dos Orgaos, which is 7,700 feet high; and Itambe, 8,426 feet. Some of the peaks are believed to be still higher. West of this the uplands of Brazil stretch far into the interior, and at length sink into the great central plain, through which flow the Paraguay and its tributaries. Roughly speaking, the height of the central plains or valleys is from 6,000 to 11,000 feet above the sea; of the passes and knots from 10,000 to 15,000 feet; and of the highest peaks from 18,000 to 23,290 feet, the last being the altitude of Aconcagua in Chili, which is generally considered to be the highest peak in America. Judging from the estimates, we may regard the bulk



A FARM-YARD IN COLOMBIA.

of the Andes as somewhere about that of a mass 4,400 miles long, 100 miles wide, and 13,000 feet high, which is equivalent to 5,349,301,600,000,000 cubic feet. On this basis we find that the Mississippi would carry down an equivalent mass of matter in 785,000 years. The rate of denudation in certain river basins varies from one foot in 700 years to one foot in 12,000 years. Assuming that similar rates would apply to the Andes, they would be denuded away in from 9,000,000 to 156,000,000 years. In all probability, much less than 9,000,000 years would suffice. On the other hand, the Andes would be swept away in 135,000 years, supposing that the denuding powers of the globe were concentrated on them alone. From the above data, and assuming the specific gravity of the matter forming the Andes to be 2.5, the weight of the portion above the sea may be estimated at 368,951,834,482,750 tons, giving an average of about 1,000 tons on each square foot at the level of the sea. Under Aconcagua the pressure would be about 1,780 tons per square foot at the same level, provided, of course, that it were not—as it no doubt is—more or less modified by lateral pressure. How vast, then, must be those forces which have counteracted

such a pressure, and upheaved the ocean-spread sediments of the continent, until the Andes, that

'giant of the western star,
Looks from his throne of clouds
O'er half the world!'

"But however vast the Andes may seem to us, it should be remembered that they form but an insignificant portion of the globe itself. Aconcagua is about $\frac{1}{1000}$ th of the earth's diameter, which is relatively not more than a pimple $\frac{1}{100}$ th of an inch high on the skin of a tall man."* Among the other great peaks may be mentioned the following:—the Nevado de Sorata, close to Lake Titicaca, 21,286 feet; the twin-peaked Illimani, 21,181 feet; Sehama, 22,000 feet; Chungara, somewhat less; Chipicani, 18,898 feet; Arequipa, 18,373 feet; Chuquibamba, 21,000 feet; Chimborazo, 21,424 feet; and the volcanoes: Cotopaxi, 19,500 feet; Sangay, Tunguragua, Carguirazo, Sinchulagua, Antisana, and Cayambe, the last of which (19,534 feet) is extinct, and stands just on the equator.† These volcanoes—of which the most southern active one is Corcovado, in latitude $43^{\circ} 10'$ south—number about twenty, but of these some eight are not now active. With the exception of the Moluccas, no region in the world has so suffered from earthquakes as South America, though these, both in frequency and activity, are chiefly concentrated along the western slope of the Andes. In Peru they are most frequent, least so in Bolivia, Brazil, and Patagonia, but to an unhappy extent in Ecuador, Colombia, Venezuela, and the Guianas.

South America is also remarkable for its great rivers, the chief of which are, from north to south, the Orinoco, the Amazon, and the Plata; though there are many others of vast extent navigable for long distances, and tributaries of all the great rivers which in themselves constitute immense waterways, such as are not found in Europe, and with a very few exceptions in Asia or Africa. Take an example: The Amazon is navigable without a rapid for 2,000 miles to Jaen where the stream is only 1,240 feet above the level of its estuary at Para. Its volume is equal to eight of the principal rivers of Asia, while the Plata most probably discharges more water than all the African rivers combined. It is needless to say that the potentialities of these rivers for inland navigation are great; and though at present the sparse population of the country and the backward state of commerce render them of comparatively little use, there cannot be a doubt but that at no very distant period they and their tributaries will be covered with thousands of steamers conveying to and from the sea the traffic which will grow up in the fertile valleys through which they flow. "The estuary of all these great American rivers opens to the eastward, and thus Providence seems to have plainly indicated that the most intimate commercial relations

* The origin of the name *Andes* is probably lost, though various have been the conjectures on the subject. For instance, it has been attributed to the Peruvian word *Anta*, or taper; *Ante*, copper or metal; *Antis*, the name of a tribe resident in the mountains; and to the Spanish *Andenes*, the term applied to the terraced gardens on the western slopes of the mountains in Chili. In Northern India, curiously enough, the Himalayas are known to some of the tribes as the *Andes*.

† Pissis: "*Comptes Rendus*," Vols. XL. (1855) and LII. (1861); "*Annales des Mines*," 5th Series, Vol. IX. (1856); Forbes: "*Quarterly Journal of the Geological Society*," Vol. XVII.; Rammelsberg: "*Monatsbericht Akad. Wiss.*, Berlin, 1870; Orton: "*The Andes and the Amazon*" (1870); Rickard: "*A Mining Journey Across the Andes*" (1863); Article "*Andes*," in "*Encyclopædia Britannica*," &c.

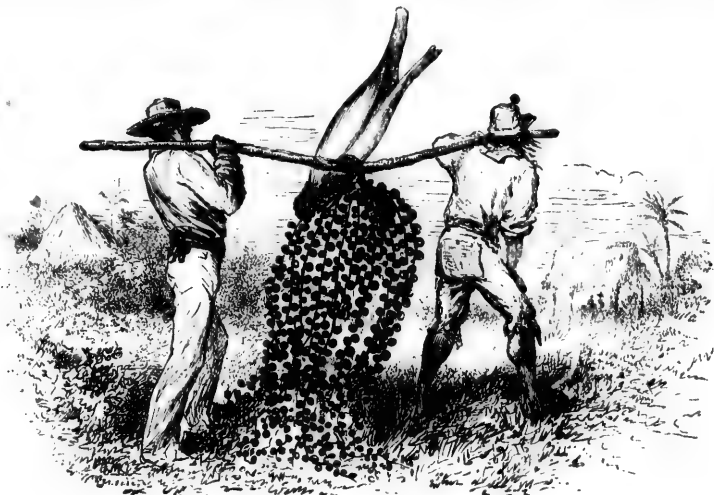
of the inhabitants of America should be with the western shores of the Old World. It should, at the same time, be observed that the position of the great rivers of America is but one example of a physical arrangement which is common to the whole globe, for it is remarkable that in the Old World, as well as in the New, no river of the first class flows to the westward. Some, as the Nile, the Lena, and the Obi, flow to the north; others, as the Indus, and the rivers of Asia to the south; but the largest, as the Volga, the Ganges, the Yang-tse, the Hoang-Ho, the Euphrates, and the Amoor, have their courses to the east or south-east. This arrangement is not accidental, but depends most probably on the inclination of the primary rocks, which, in all cases where their *direction* approaches to the north and south, seem to have the steepest sides to the west, and the largest declivities to the east. We have examples in the Scandinavian Alps, the mountains of Britain, the Ghauts of India, the Andes, and the Rocky Mountains."

As in North America, there is a wide difference between the two sides of South America. On the west the Guayaquil (p. 92) is the only river of any importance, and even it is scarcely comparable with the rivers of Brazil and Guiana. On the west, north of Chili, there are only two harbours—Guayaquil and Panama—worthy of the name; while in the east there are many, exclusive of the mouths of the many great rivers which flow into the Atlantic, and which virtually form a great network of canals through which the commerce of the world can be carried all over the continent, and even into Peru, which borders the Pacific. America is thus fitted for commerce before all the rest of the world. A third of the rivers of Europe and Asia flow into the Arctic Ocean, or into land-locked lakes, like the Aral and Caspian, and thus, even should the discovery that for three months in the year the mouths of the former are accessible from Europe prove to be well founded, they are to a great extent lost to commerce, owing to the ice which forms on them and in their vicinity. America possesses only one river of consequence—the Mackenzie (Vol. I., p. 190)—which is in the same situation.

COLOMBIA.

The "Estados Unidos de Colombia" were formed out of the nine states known prior to 1861 as New Grenada. Their history is that of the other Spanish republics, in so far that revolution, varied with anarchy and assassination, has, unfortunately, been too frequently the main incidents in the record of Colombia's career since it broke off from Spain in 1811. Up to 1824 it waged war against its stepmother, though before that date the elements of dissension and disintegration had entered the country, and gradually disrupted the republic of Colombia which Bolivar formed in 1819. In 1829 Venezuela withdrew from the union, and in 1830 Ecuador followed her example. In 1831 the republic of New Grenada was formed, and almost as soon civil war began and lasted at intervals, during which various states seceded, only after a time to return to the Federal fold. From 1843 to 1853 the country enjoyed comparative prosperity. But in the latter year the constitution was so amended that to every state was given the right of seceding, and of entering into merely Federal relations with the Central Republic. Some states took advantage of this permission, and civil war followed in due course. This lasted up to 1861, when the present constitution was promulgated; and though it cannot be said that for any length of time the country has been

entirely at peace, yet no rebellion during the last seventeen years has been so far successful as to break up the country into its component members. This may be a small subject for congratulation, but in South America the hopes of the historian get chastened by many disappointments. The present republic consists—in addition to six territories—of nine states: Antioquia, Bolivar, Boyaca, Cauca, Cundinamarca, Magdalena, Panama, Santander, and Tolima. Of these the largest is Cauca (257,462 square miles), and the most thickly populated Boyaca (482,874); Santandar (425,427); Cundinamarca (409,602); and Antioquia (365,974); the whole area of the country being 504,773 square miles* (or more than double that of Spain and Portugal), and the population by the last census (1871), 2,950,017. Probably at the present



BOTANISING IN COLOMBIA (FLOWERS OF A PALM TREE).

time the population exceeds three millions, of which 100,000 are uncivilised Indians. About 330,756 square miles are north of the equator, and the rest south of it. Its revenue averages about half a million pounds per annum, while its expenditure is usually less. However, in 1877 they stood respectively at £622,924 and £555,882; but the foreign public debt was in the same year over £2,000,000, though it is in some authoritative documents stated at a much higher figure. The interior debt was in the same year over £1,000,000, the imports from Great Britain £783,183, and the exports from the same country £681,913, which is much less than ordinary. The Isthmus of Panama, already described, is, though not the most populous or largest, yet the most important of the Colombian states, but none of the towns are of great importance, and less than a tenth of the whole country is under cultivation. The city of Panama has 18,378 inhabitants; Santa Martha, 3,500; Cartagena, 7,800; Socorro, 20,000; Medellin, 30,000; Tunja, 8,000; Bogota (the Federal capital), 50,000; Ibague, 13,000; and Popayan, 16,000. These towns are the capitals of the different states.

* Sometimes given at 320,750 square miles.

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MAP OF SOUTH AMERICA.

It would be unjust to Colombia not to point out that, notwithstanding its many troubles, it holds a high place among the South American Republics for the care bestowed on national education. In 1875 there were 2,113 public schools, with 126,000 pupils, with sixty colleges and seminaries for higher and professional instruction, the total sum voted for national education being in that year about £220,000. Perhaps it was not all spent, and, indeed, there are tales of professorial salaries unpaid, but even a *will* to educate the people must be counted for something in these latitudes. In 1873-74 the post-office conveyed 358,254 letters, which gives a fractional correspondence per head to the Colombians. The chief products of the country are those derived from its extensive forests, such as mahogany, cedar, fustic, and other dye woods and medicinal plants, while gold, silver, copper, platinum, lead, precious stones, and even coal, are among the mineral riches of Colombia. Tobacco, coffee, cocoa, plantains, indigo, wheat, and other cereals, are the chief agricultural crops. Its manufactures are, however, insignificant, woollen and cotton stuffs for home use being almost the only ones of any note. The great plains pasture enormous herds of cattle, from the flesh of which jerked beef is extensively prepared, while the hides form an even more lucrative article of commerce to the *rancheros*. In 1875 £632,017 worth of gold and silver were exported, £543,128 of tobacco, £362,349 of cinchona bark, £146,458 worth of coffee, £29,997 worth of india-rubber, over £34,000 worth of copper, &c. After the comparatively full account which we have given of the State of Panama in a former chapter (pp. 49-58), and of the state of society generally in the neighbouring countries, it is unnecessary to occupy much space with a description of either Colombia or of the neighbouring republic of Ecuador. The three great spurs or ranges of the Andes, known as the Western, Central, and Eastern Cordilleras, intersect the whole country; the last-named, which is the largest, containing a number of extensive, cool, and healthy table-lands. That portion known as the *paramo* of Cruz Verde has an elevation of 11,695 feet. The Eastern Cordillera in its passage through the State of Santander attains in the Alto de el Viego a height of 12,965 feet; in the Alto de el Trio of 9,965 feet; and in the Boca del Monte of 12,735 feet. The Sierra Nevada is covered with perennial snow over a great part of its summit, so that the general report that it reaches a height of 23,779 feet may possibly not be an exaggeration. The *llanos* of the Orinoco we have already spoken of. As far south as the Vichada they form an almost unbroken level of treeless plains, but farther south the forests encroach on them, and in places hillocks, rising to the height of from 300 to 600 feet, interrupt the dead level of these flat lands of the equator.* The scenery of Colombia is, as might be expected, from such a land of river, mountain, forest, and lake, grand in the extreme. One of the most remarkable of the "show places" of the country we have engraved on p. 81. It is the Waterfall of Tequendama, formed by the precipitation of the water of the Rio Funza, by one bound, over a precipice 475 feet in height. It is situated not far from Bogota, and quite deserves the designation which

* Restrepo: "Historia de la revolucion de Colombia" (1827); Berg: "Physiognomie der tropikal Vegetation Süd Amerikas" (1856); Mosquera: "Compendio de geografia dos estados unidos de Colombia" (1866); Hall: "Colombia: its Present Condition, &c.," (1871); and the works already quoted; in addition to Codazzi: "Atlas de los estados unidos de Colombia," and "Colombia: siendo una relacion, geografica, topografica, agricultural, commercial, politica, &c., de aquel pays" (2 vols., London, 1822).

M. Edouard Andre applies to it, namely, that of "one of the greatest wonders of nature in South America." In the vicinity of the Fall are found a profusion of ferns, and the great flowered *Begonia*, figured on p. 84.

ECUADOR.

From the ruins of the republic, established through the exertions of Bolivar, arose in 1830 that of Ecuador—literally the Equator—or, as it is sometimes called, Quito. It is needless to recount its history: the secession of a state, the pacification of another, the election of one President and the *pronunciamiento* of his unsuccessful rival, a revolution and an earthquake, a frothy proclamation promising all the good things in all the best constitutions which the world ever saw, followed by religious despotism, political terrorism, and a crushing censorship of the press, and finally by the assassination of a President, are among the many things which a student of Ecuadorian history is apt to consider the most striking points which remain in his memory after a perusal of its very confused chronicles.

The boundaries of Ecuador are so imperfectly marked out that the estimate of its area varies from 127,205 square miles to 248,580, including the Galapagos Islands, an uninhabited group in the Pacific (containing 2,951 square miles), which are dependencies of the republic.* The population can only be equally vaguely stated, but probably the estimate given by the Minister Leon in 1875, viz., that, exclusive of about 200,000 wild Indians, the population was at that date 866,137,† is as correct as any that can be quoted. The mountains of Ecuador form its most interesting feature, the great chain of the Andes traversing it from north to south, its two Cordilleras running parallel to each other, "and enclosing an elevated longitudinal valley about seventy miles wide and 300 miles long, which is divided by the transverse ridges, or *nudos*, of Tiupullo and Assuay into the three great basins of Quito, Ambato, and Cuenca, which are again sub-divided by inferior ridges into irregular sections." In the Eastern Cordillera several of the peaks attain a height of 18,000 feet, while in the western one Chimborazo is the only one which exceeds 17,000 feet. The plain on which the capital—Quito—is built exceeds 9,000 feet in height, while Ambato is at 8,500, and Cuenca at 7,800, the two latter being comparatively barren, but the country round Quito is "clothed with luxuriant vegetation." In the Eastern Cordillera, Imbabura attains a height of 15,029 feet, and is famous for its eruption of mud and water, though the old tale that fish have also been thrown out is said by later historians to have been founded on misconception. Cayambi (p. 86) is the only snow-capped mountain in the world which is situated exactly on the equator. Antisana (18,800 feet) appears at one time to have been an active volcano of the first magnitude. It is now extinct, though smoke was seen to issue from it in 1802. Sincholagua and Rumiñagui are respectively 16,360 and 15,603 feet in height. But all these pale into insignificance before Cotopaxi, the "fiftiest active volcano in the world. It is situated thirty-five miles south-south-east of Quito, but was scaled successfully for the first time in 1872 by Dr.

* Behm and Wagner: "Bevölkerung der Erde," 1874, p. 76.

† *Journal de la Soc. de Statist. de Paris*, January, 1876, quoted in *Almanach de Gotha*, 1878.

Reiss, and in the following year by Dr. Stübel. The north-east peak is 19,498 feet above the sea, and that of the south-west peak 19,429, the snow line on western and southern sides being respectively 15,180 and 15,174 feet.* Only the east side is covered with snow, the action of the trade winds denuding the western slope of its white covering. "On the southern slope," writes Mr. Webster, "at a height of 15,059 feet, a small cone, called *el Pecacho* (the beak), or *Cabeza del Inca* (the Inca's head), lifts its bare cliffs for above a thousand feet, and from its general appearance gives some show of reason to the tradition which regards it as the original summit of the mountain blown



ON THE RIVER GUAYAQUIL, ECUADOR.

off at the first eruption in 1532. The present summit is usually enveloped in clouds, and even in the clearest month of the year it becomes visible only for eight or ten days." Wagner describes the wind on the Tacunga plateau as usually meridional, generally blowing from the south in the morning, and frequently from the north in the evening; but that from the summit of Cotopaxi the north-west wind always prevails during the day. The gradually widening volcano cloud continually takes a south-western direction over the rim of the crater; at a height, however, of about 21,000 feet, it suddenly turns to the north-west, and maintains that direction till it reaches a height of at least 28,000 feet. There are thus, from the foot of the volcano to the highest level attained by its smoke cloud, three quite distinct regular currents of wind.† El Altar, another old volcano, is made up

* Reiss: *Zeitschrift der Deutschen Geolog. Gesell.*, 1873. Stübel: *Bull. de la Soc. Geog. de Paris*, 1874; quoted by Webster.

† "Naturwissensch. Reisen im tropikal Amerika," p. 514.

of eight snow-covered peaks, the highest of which is 17,735 feet, Chimborazo, "the Mountain of Snow," is 20,007 feet high,* and though imposing from any point of view, can be best appreciated as seen from the Pacific: as yet its summit has never been reached, the highest point attained being 19,682 feet, at which elevation Boussingault and Hall had to bridle their ambition in 1831. Carahuairazo, in the immediate vicinity of Chimborazo, is 16,748 feet, and Quiratoa, further north, 13,510 feet. Its crater is said to be filled with a great lake, as not unfrequently is the case in the extinct volcanoes, and it is



GATHERING CINCHONA BARK IN ECUADOR.

asserted that the surface of it has very frequently been covered with flames. The only other peaks of Ecuador which we need mention are Llanganate, 17,843 feet, Tunguragua, 16,685 feet, Illinoza, 17,395 feet, Corazon, 15,793 feet, Atacazo, 16,000 feet, Pichincha, 14,984 feet, Coto-cachi, 16,288 feet, and Chiles, 16,200 feet high. Most of these are either active or extinct volcanoes. The eruption of Pichincha in 1566 covered Quito three feet deep with ashes and stones, though the crater having been broken down the western side in the eruption of 1600, most probably the capital will be safe from any future eruption of this magnificent, but somewhat too active, neighbour of the Quitonians. Ecuador is divided into three departments and eleven provinces. A university exists at Quito, and there are colleges in several towns,

* According to Reiss and Stübel; but Humboldt gives the height as 21,420 feet.

but education is at a low stand, and as the power of the priests is still strong, religious toleration and freedom of thought are not in a condition that call for any superfluity of enthusiasm. In the extensive forests grow the valuable cinchona trees, which yield the Peruvian bark, gathered by the *Cascarillos* (p. 93), who are so recklessly destroying the tree that, according to Weddel, Spruce, Markham, and Cross, they will soon exterminate it, when the world will become dependent for its quinine on the plantations now flourishing in India and Java. Cocoa is the chief crop, but coffee, cotton, orchilla weed, straw hats, yams, tobacco, fruits of various kinds, sarsaparilla, wheat, india-rubber, many gums and medicinal substances, &c., are exported. Gold, quicksilver, lead, iron, copper, and emeralds, not to mention the abundant banks of sulphur sent out by its superabundant volcanoes, are among the mineral products of Ecuador. The finances of the country have long been in such a condition that only a vague estimate can be arrived at in regard to the weighty matter of income and expenditure. In 1876 the former is reported to have amounted to £331,000, and the latter to the unhealthy sum of £480,000. In 1877 the Republic owed £3,274,000. Ecuador does comparatively little trade with Great Britain, the United States monopolising nearly all of this, which again almost centres in the port of Guayaquil. In 1876 England received £244,517 of Ecuadorian products, and sent the Republic £225,273, which was much more than the average of previous years, and of this, cotton goods formed the staple, while cocoa and Peruvian bark, with some dye-stuffs, comprise the chief of our imports from Ecuador, a country which nature has fashioned on a magnificent scale, but which man has done poorly by. Quito, the capital of the Republic, is one of the most remarkable cities in the world, in so far that it is situated at a height of 9,492 feet above the sea. Here the climate the whole year round is one perpetual spring. The scenery of the snow-capped mountains in the vicinity is magnificent, and there is no more charming region in the world than the lovely gardened valley of Chillo, to the south of the city. The best houses are built of stone; the others of adobe, or sun-dried brick, roofed with tiles. Quito is, moreover, a most religious city. Convents, monasteries, and churches abound, and the cathedral is one of the finest of those in the northern part of South America (p. 96). In 1859, the great earthquake nearly destroyed the town. But it has now recovered this disaster, and has at present a population numbering from 35,000 to 80,000. Mr. Webster, to whose excellent account of Ecuador we have been much indebted, thus sums up the state of the roads they have in the country, and with this we shall conclude our brief sketch of this South American Republic:—"Artificial means of communication are still for the most part in a very primitive condition, though few countries have so little reason to be content with the natural highways by land or water. Many of the roads even between important centres of population are mere mule-tracks, altogether impassable in bad weather, it may be for weeks or months at a time, while the violent torrents which have so frequently to be crossed often present nothing better than more or less elaborate bridges of rope similar to the *jhuler* or *zampur* of the Kashmirians. The simplest of these is the *taravita*, consisting of a single rope, with or without a travelling rope, by which the passenger or his luggage may be hauled across. The most complex is the *chimba-chaca*, a rude prototype of the regular suspension bridge, constructed of four or five ropes of agave root fibre, supporting transverse layers of bamboos. The

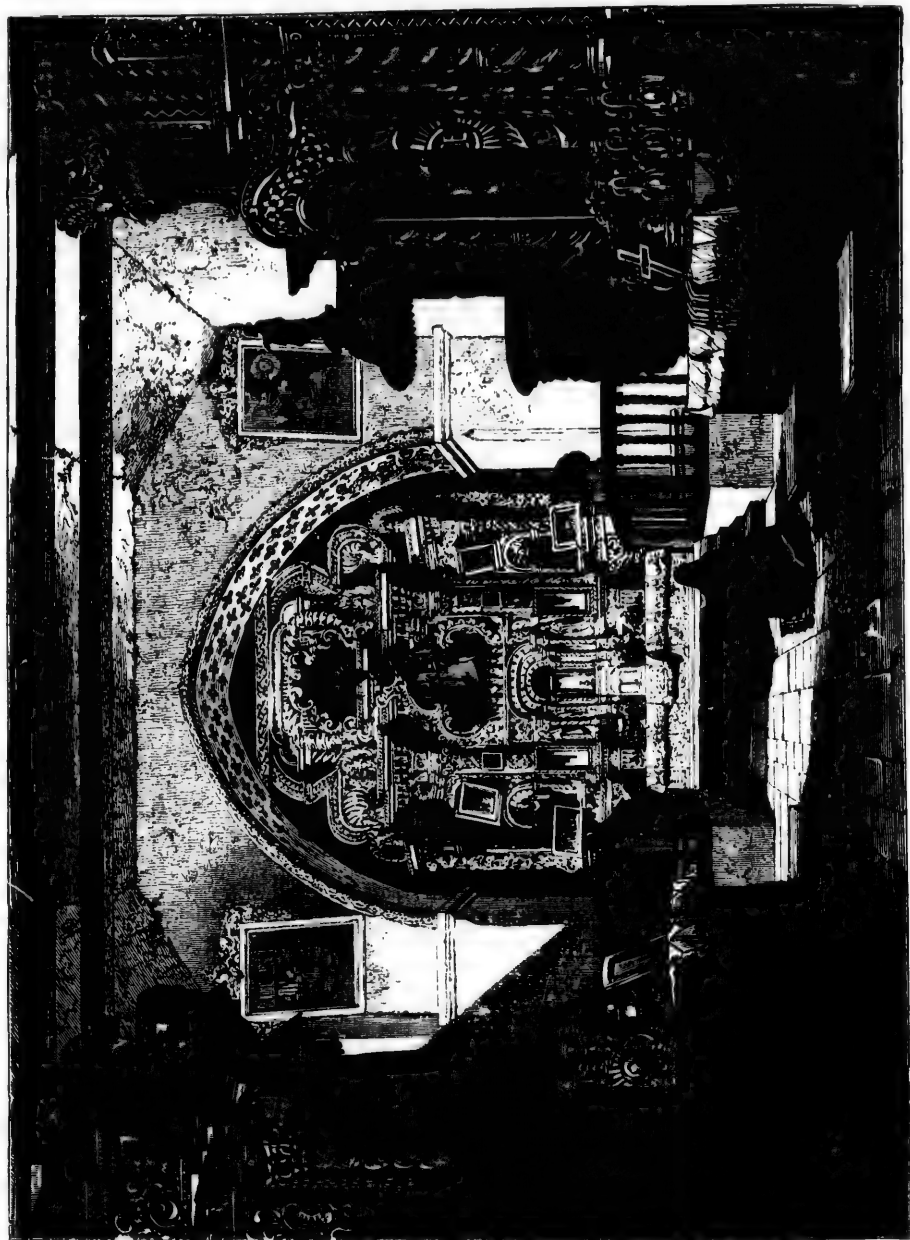
best are hazardous to all except a practised foot, and they get out of repair in a few years. Since the middle of the century something has been done to improve this state of affairs; and a very great deal more has always been about to be done. According to Moreno's address to Congress in 1874, Ecuador had at that time 30 miles of railway, nearly 300 miles of cart road, with substantial bridges, and about 250 miles of roads fit for the ordinary mule traffic of the country. Wheeled conveyances are almost unknown, especially in the inland districts, the transport of goods of every description being effected by porters or mules. The first carriage was introduced into Quito in 1859, and the owner had to pay a tax for his innovation."*

CHAPTER VII.

VENEZUELA AND THE VALLEY OF THE ORINOCO.

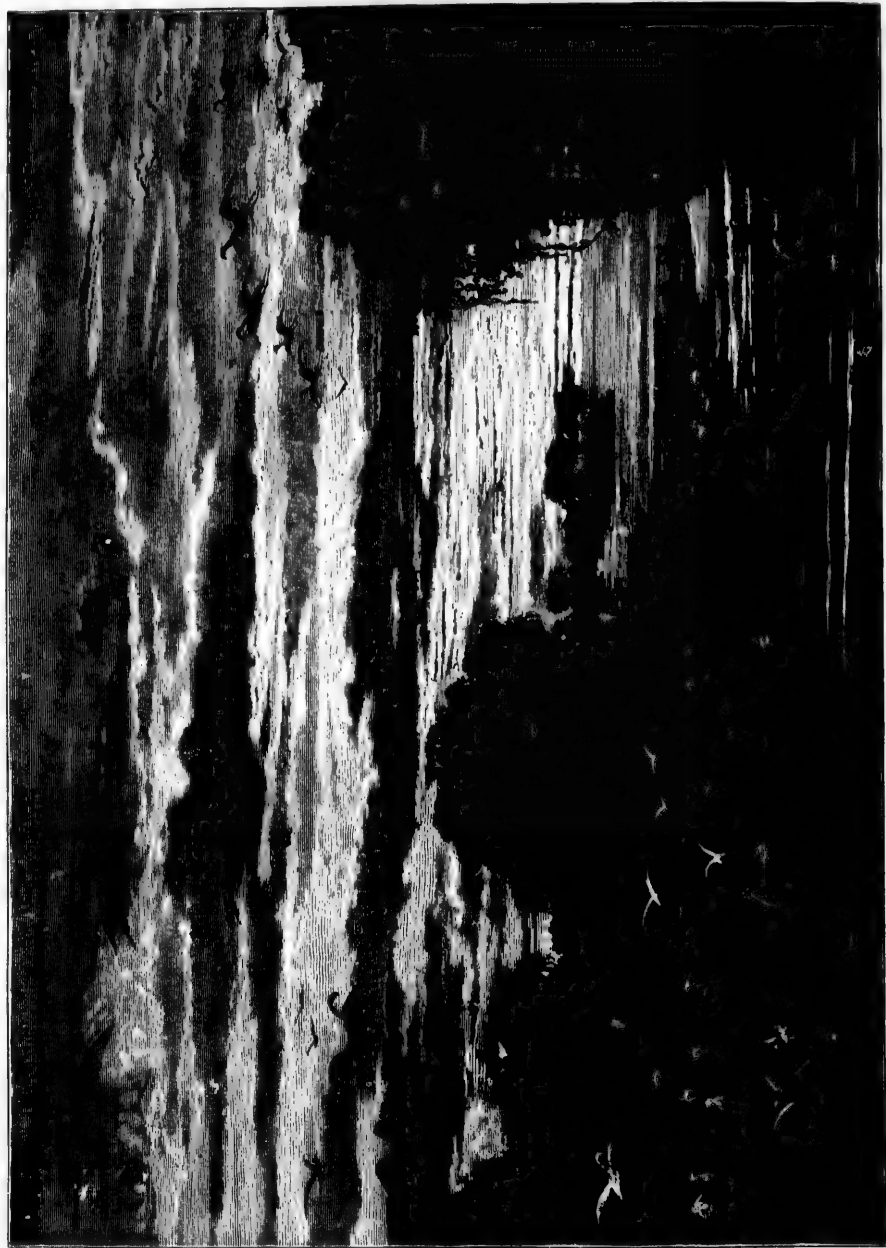
AFTER a traveller has passed long enough time in Central America, or in Ecuador and Colombia, to learn about one-half of what has been told the reader in the preceding pages, he will undoubtedly have for the time being had enough of it. He will long for a life more exhilarating, and for a climate just a little cooler. Brown faces will have grown tiresome to him, and the most combustible of very young men, after enduring the society of mosquitoes and all the other attendant evils for six months at a stretch, will have grown *blasé* to Señoritas of the Castilian or any other race. He will weary for England and English fogs. A Vermont pine forest will be in his eyes more lovely than all the glories of the tropics, and a sandy flat in North Germany, with the simple boors who vegetate on it, a more charming bit of scenery than any pampa of the south, where lithesome horsemen drive their beeves, lean, sinewy, and unwholesome, through the quivering hot air of the equator. But he will come back again; they always come back again to these wild countries, unless, indeed, death, disease, filthy lucre, a wife, or some such irresistible persuasive keep "at home" the enthusiast who has once tasted of the bitter-sweets of these lands. We are in that condition: so let us return, as the *cicerone* of the reader who wishes to gain a glimpse of the countries lying south of Colombia. We are bound for the Republic of Venezuela and the Valley of the Orinoco, and may probably, like the buccaneer of the sea-song, bring up at "La Guayra upon the Spanish Main," a very hot town celebrated in ballad and story. We have passed Sombrero, or Hat Island, a flat rock twenty feet above the sea, and a few hundred yards long, at one time inhabited only by black lizards and sea-fowls, and where it was difficult to effect a landing except, to quote the sailing directions, "under very favourable circumstances, by watching an opportunity and jumping on a flat ledge to the cliff, and with some difficulties ascend to the summit." But a prying

* Villavicencio: "Geografía de la Republica del Ecuador" (1858); Spruce: *Journal of the Linnean Society*, 1860; Jamieson: *Journal of the Royal Geographical Society*, 1861; De Thoron: "Amerique equatoriale," 1865; Orton: "The Andes and the Amazon" (1870); Simson: "Notes of Journeys in the Interior of South America" ("Proceedings of the Royal Geographical Society," 1877); Flemming: "Wanderungen in Ecuador" (1877); Gerstücker: "Achtzehn Monate in Süd-Amerika" (1863), &c.



INTERIOR OF THE CATHEDRAL OF QUITO, ECUADOR.

INTERIOR OF THE CATHEDRAL OF QUITO, ECUADOR.



VIEW ON THE RIVER SURINAM, DUTCH GUIANA.

soul found that the sea-fowl had left posterity a legacy as pay for their footing, and accordingly until lately, Sombrero was "quoted" in that odorous world which concerns itself with guano and other fertilisers.

Next we are at St. Thomas, and not improbably will be glad to quit it, though



VIEW OF CARACAS, THE CAPITAL OF VENEZUELA.

it is the central figure in that group of isles which Columbus named in honour of the eleven thousand virgins of sainted but apocryphal memory. The islands to the east of St. John—which are the near neighbours of St. Thomas—are "ours;" those to the east own the rule of King Christian of Denmark. Should any one be in doubt amid so mixed a political medley as to what ought to be assigned England and what to any other power, he

has only to ask the name. Then, as some one remarked, you will know the English islands by the roughness of their nomenclature, and their utter want of sonorous terminology. There are no French or Spanish "kickshaws" in John Bull's geographical *menu*, only the plain roast and boil of the cartographical world. Here, for example, is Salt Island, followed by Ginger, Cooper, and Beef Islands, or by Scrub, Guano, and Jost-van-Dykes Isles. We are now passing Anegada, or "Drowned Island," infamous for shipwrecks, and dreaded of mariners. Once on a time the bay swarmed with buccaneers, and when these piratical hunters of wild cattle and driers of their flesh were among the things that had been, wreckers came and colonised the island. Ostensibly they reared cotton and cattle; actually they breathed morning, noon, and night, like the Cornish men of last century, a silent prayer that Providence would be pleased to send a well-cargoed vessel thitherward on the long nine-mile reef, which stretches to the south-east of this isle of evil fame. On the island is a funnel-shaped well full of fresh water, which curiously enough rises and falls with the tide. There is here a strong westerly current. Mr. Eastwick mentions a fact which I recollect being told when passing it, by probably the same informants, that the fishermen at Anegada find sufficient cork, drifted to them from the coast of Spain, to supply their nets with floats. Bottles, too, launched in the river Gambia in Africa have been picked up on the Virgin Islands. Between the islands themselves the currents are in many places so violent, that to row a boat from island to island is a dangerous and often all but impossible undertaking. Many small craft have been swept away, and the crews drowned in the attempt. Between the eastern part of St. Thomas and the Isle of St. John there is a furious current, and the waves rise in such huge surges, that when the southern tide is in its strength, it would be impossible for any small vessel to encounter that terrible sea.

Westward still is the Virgin Gorda—which being translated is "Fat Virgin"—in truth a fruitful damsel, for she supports some thousands of people sumptuously on the produce of her rum, sugar, tobacco, and copper. It is even whispered that gold, silver, and "other minerals" have been found among the treasures of this portly virgin. Then there is Tortola, with a cluster of isles in its vicinity forming a fine archipelago, where, some enthusiasts declare, all the navies of England might ride in safety—that is, if they desired to ride in any such place.* This island, like St. Thomas, is suffering from drought, owing to the inhabitants improvidently cutting down the trees that at one time clothed the hills, which in the latter island run throughout its whole length. But St. Thomas, besides the want of water, suffers from yellow fever, which is almost as bad, especially as the water is at the best of times not good, though the inhabitants rarely drink any except in the form of ice in their sherry cobbler, and the ice comes all the way from Boston, a place much lauded in hot weather, especially under the cool arches of the Ice House in the main street of Charlotte Amalie (Vol. II., p. 505). Then there is Santa Cruz, thirty-two miles south of St. Thomas, but healthier, though flatter; and farther on the way

* In some books, otherwise authoritative, most erroneous estimates are given of the population of these islands. For instance, in that which I have already quoted, and shall have again occasion to do, Virgin Gorda is said to have 10,000 inhabitants, Tortola 11,000, and so on, the truth being that the whole of the British Virgin Islands had in 1871—three years after the date of the book—only 6,651 people.

is Ochilla, one of the Isles of Aves, a very noted place in the guano trade, and not unknown to romance for

“ — such a port for mariners I ne’er shall see again,
As the pleasant Isle of Aves, beside the Spanish Main;

Oh, the palms grow high in Aves, and fruit that shone like gold,
And the colebris and parrots, they were gorgeous to behold;
And negro maids to Aves from bondage fast did flee
To welcome gallant sailors a-sweeping in from sea.

If I might but be a sea-dove, I’d fly across the Main,
To the pleasant Isle of Aves, to look at it once again.”

So said—or sung—the “Last Buccaneer,” in Charles Kingsley’s lay. Eighty miles south of Ochilla lies La Guayra, and La Guayra is in the Republic of Venezuela.

But long before that odorous apotheosis of dulness comes, as an unbeautiful vision to the voyager’s eyes, the most prominent feature in the landscape is La Silla, “the Saddle,” the mountain which overhangs the town. It can be seen at sea seventy or eighty miles distant, being 8,600 feet high, and the loftiest elevation between the coast and the Andes. It is the pleasantest feature of La Guayra, albeit this is one of the most picturesque towns at a distance, and one of the hottest on earth near at hand, in all the world. Seaward the breeze brings us odours of Araby the Blest—spice-laden winds I used to believe them to be, but at one-and-twenty imagination often runs riot with reason. At all events, La Guayra is, except in hot weather (which is always), not an unpleasant place to bring up in, that is to say if the visitor is partial to mixed smells, and careless of the nameless whiffs which father yellow fever. However, the outside of the town makes up for the disagreeableness of its inside. It is the port of Caracas, a mysterious thing to mariners, for it is an open roadstead, and when the northers blow a cannon is fired as a signal for the ships to weigh their anchors and run out to sea, lest a worse fate befall them. Yet a mile or two to the west, on the other side of Cape Blanco, there is a snug harbour called Catia, from whence an easier road might be made to Caracas than the present one from La Guayra. “But no,” writes the Commissioner for the Venezuelan Loan of 1864, “in spite of the swell which has caused the loss of so many vessels, which makes communication with the shore troublesome, and which stirs up the sand in a fashion that renders it necessary to weigh anchor every eight days, lest the ship should become sand-locked, in spite of the ravages of the ship-worms—the *teredo navalis*—*la broma*, as the Spaniards call them—more destructive at La Guayra than anywhere else in the world, commerce, which seems the only conservative thing in America, still keeps to its old route.” There is no town which can be compared with La Guayra, unless, indeed, it be Santa Cruz, in the Isle of Teneriffe, which also lies at the foot of a great peak. La Silla appears rising, as it were, direct out of the sea, as if, to use Humboldt’s words, “the Pyrenees or the Alps, stripped of their snow, had risen from the bosom of the waters.” The town is excessively hot, a fact which may be realised when we say that the temperature of the coldest month in the year is four degrees centigrade higher than that of Paris at its

hottest, though when one is in those parts the conclusion usually arrived at is, that the last place visited is the warmest yet experienced, a state of belief in which the martyr remains until he visits another town, when he modifies his faith so far as to come to the conclusion that this furnace is surely more torrid by some degrees than the one he has left.

STATISTICS AND PHYSICAL FEATURES.

Venezuela is entirely tropical, and is misnamed. It has nothing at all of Venice about it, and even if it had, is not "little Venice," as its name signifies, for a region full of piled-up mountains as great as the Alps, containing forests larger than France, steppes as great as those of Gobi, and an area altogether four times that of Prussia, can have little in common with the picturesque city on the Adriatic. But like many other designations, that of Venezuela originated in a mistake. The conquistadores, when they first visited it, found the Indians of the shallow "Lake" of Maracaibo living in "lake dwellings"—*—huts built on poles in the water. This suggested a likeness to Venice, and hence the name and the misnomer. The history of the republic need only be given briefly, for in its essential features it is that of the other Spanish American countries which we have had occasion to touch on and may have yet to describe. Its independent life dates from 1830, when the Confederation formed by Bolivar broke in pieces, and its present constitution is, to a great extent, that of the United States, though, as if to better provide for easy revolutions, rather more laxity or liberty is allowed to provincial and local governments. Since 1847, there has been almost continuous civil war—the federalists desiring a strong central government; the confederalists the greatest possible independence of the twenty-one states; the leaders of both parties, power and pelf. On that particular point they have hitherto displayed remarkable unanimity. The area of the Republic is estimated at 403,261 square miles, and the population, by the last census (1873), at 1,784,197.† The chief cities are Caracas (the capital, p. 97), 48,897; Valencia, 28,594; Barquisimeto, 25,664; Maracaibo, 21,954; Maturin, 12,944; San Carlos, 10,420; Merida, 9,727; Cumana, 9,427; Ciudad Bolivar, 8,486; Coro, 8,172; Barcelona, 7,674; and La Guayra, or Guaira, 6,763 inhabitants, in addition to about 24,000 foreigners resident in, or passing through, the country. Of the States, Guayana is the largest, but Guarico is the most thickly populated. There are, in addition, three territories organised on the principle of those of the United States. The Custom House, which is the chief source of revenue, yielded, in 1875, £690,000, while the national income in the same year was 6,702,080 venezuelanos, or £1,340,416, and the expenditure £1,228,626. The public debt is somewhere about £20,000,000, of which about £7,000,000 is due to foreigners, chiefly Englishmen, but on this the interest is never paid with any regularity, or, indeed, even when paid, to the full amount promised on the bonds. The financial affairs of the nation are in a lamentable condition, internal wars, and the support of a

* Engravings of these curious dwellings are given in "The Races of Mankind," Vol. I., pp. 276, 277.

† Tejera: "Mapa físico y político de los Estados Unidos de Venezuela" (1876); "Venezuela pintoresca e ilustrada" (1875); Codazzi: "Rapport sur les Travaux Geographiques dans la Venezuela" (1841); Dance: "Four Years in Venezuela" (1876); Meulemans: "La republique de Venezuela" (1872); Thirion: "Les états-unis de Venezuela" (1867); Eastwick: "Venezuela" (1868); Spence: "Land of Bolivar" (1878); "Consular Reports," &c.

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A RIVER SCENE IN VENEZUELA.

large army and militia completely disordering the affairs of a country never very orderly or very ready or able to meet its obligations. The total commerce of Venezuela was, in 1875, valued at 31,000,000 venezuelanos, or about £6,200,000, the exports exceeding by nearly £215,000 the imports. Cocoa, cotton, sugar, indigo, dye-woods, &c., are among the chief exports, cocoa and coffee figuring in the first rank, though ores—chiefly of copper—and the precious metals are also among the articles which Venezuela sends to foreign countries. The chief export trade is with Germany and the United States. It imports mainly from the United States, France, and England. But with Great Britain the Venezuelan export trade is trifling. In 1875, for example, only £37,136 in goods were sent to England, while the imports (£733,404), which were less than those taken from the United States or France, were almost exclusively on account of German houses, which now monopolise the trade of Venezuela. In 1876, the exports had increased to £54,878, but the imports had fallen to £679,163. This is infinitely less than should be expected from such a country, lying within the tropics, having one of the richest soils in the world, abounding in all kinds of mineral and vegetable riches, and possessing a climate which ranges from that in which perpetual snow is capable of lying, down to the greatest heat which the thermometer records of countries inhabited by civilised men. The great range of the Andes runs through it from north to south, forming its western limits, and from this cardinal chain there branches, as already noted, three tributary spurs gradually diminishing towards the east until they are lost in the wide plains of the Apure and Guayana. Yet these smaller sierras are by no means of minor importance. That which begins at Merida possesses peaks which tower to the height of 15,798 feet above the sea. The sierras to the north of it are separated from the Andes by the Great Lake, or Gulf, of Maracaibo, the area of which is 6,300 square miles. The most northern of these, namely, that beginning in Coro, runs seaward, and is apparently submerged, for it again reappears in the islands of Tortuga and Margarita. As might be expected, all this region is watered by innumerable streams flowing from the Andes and from the sierras mentioned, and unite to form the great river Orinoco, which bisects Guayana, and as it passes Ciudad Bolivar pours, according to Codazzi, even when at its lowest, "a flood of 240,000 cubic feet of water per second towards the ocean, or as much as the Ganges brings down when at its highest." There are thus in Venezuela three great regions, according to the classification of Colonel Codazzi, its best orographer. First, there is the alpine region of the Andes, which lies between 6,000 and 15,900 feet above the level of the sea. In this region are the Páramos, or Cold Deserts, where an icy and furious blast chills the blood. During the civil wars whole regiments have perished in attempting to cross these wastes. Yet at the foot of the mountains are immense woods, in which the cacao tree (*Theobroma*) grows wild. In this region, too, are the sabáñas, or plains of the Barinas, surrounded by an amphitheatre of hills, which rise in successive stages. At the summit of each stage are table-lands that might be cultivated. There is no population, however, save in the centre. There coffee, potatoes, wheat, barley, and most of the cereals and legumes of the temperate zone are grown.

The second region, which begins at a height of 1,890 feet above the sea, is that of the Cordilleras, or mountain-chains, which run parallel to the coast. Among these chains

are the rich valleys of Fui, Araguas, and Valencia, and here in the deep black mould of marvellous fertility grow the crops of coffee, cocoa, maize, cotton, indigo, sugar-cane, yucca, and plantain, which make Venezuela known to the markets of the world.

The third region into which Codazzi divides his native country is that of Parima, or Guayana. In shape it resembles a great convex dish, "elevated and corrugated by lines of hills which are sometimes regular, sometimes broken by gigantic rocks, covered with grass, or bare, and in the shape of pyramids, towers, and ruined ramparts." This is the great region of virgin forests, of which there are here alone 5,104 square leagues. Besides the vast sabáneas (or savannas, as they are more familiarly called) of Apure, there are pastures thus described by Don Ramon Paez: *—"They are characterised by a luxuriant growth of various grasses, which, like those of the Portuguesa, preserve a uniform verdure throughout the year. These grasses, some of which are soft and pliable as silk, are most important in the economy of cattle-breeding. The prodigious increase of animals in these plains is owing mainly to the superiority of the pastures over the llanos, whence the farmer is compelled to migrate with his stock every summer. There are three varieties of grass which in richness of flavour and nutrition can hardly be surpassed by any other fodder plants of the temperate zones. In the early part of the rainy season the grana-dilla, a grass reaching to about four feet in height, with tender succulent blades and panicles of seed, not unlike some varieties of broom-corn, starts with the earliest showers of spring. It grows with great rapidity, and is greedily sought by all ruminants, but being an annual, soon disappears. In the alluvial bottom-lands, subject to the periodical inundation, two other grasses, no less esteemed for their nutriment, have an uninterrupted growth and luxuriance, which the hottest season cannot blast. These are the carretera, named from the beautiful prairie goose that feeds on it, and the lambedora, so termed on account of its softness." These sabáneas form part of a great plain which stretches away for a thousand miles to the foot of the Bolivian Alps, though not unbroken, for in the midst of it rises a plateau called the "Mesa" of Guanipe, the height of which above the sea varies from 870 to 1,392 feet, though around it are many secondary plateaux, from which issue tiny rills of water, which do not sink into the soil, as the traveller when he first sees them showing themselves from beneath the palm-trees might suppose would be the case. "Far from being lost, they grow and grow till they become streams, and then uniting, form rivers. In fact, the whole land is full of springs, and the map indicates the course of one thousand and sixty rivers, all navigable, of which seven are of the first class, thirty of the second, twenty-two of the third, and nine hundred and sixty-three of the fourth." † Codazzi divides Venezuela into three zones—the agricultural, pasture-land, and forest zones. The first could support seven millions of people; the pasture-land is of course less thickly occupied, and its economic return is naturally limited by the herds which each individual grazer may put on it; last of all is the forest zone, of which only a moiety has been cleared, and the area is not likely to be greatly increased for some time to come. Yet of its area of 18,214 square leagues, 3,000 are classed as hilly, on which sheep might graze; 797 as sabáneas, fit for cattle; 12,000 as

* "Life in the Llanos of Venezuela" (1861).

† Eastwick: "Venezuela, or Sketches of Life in a South American Republic," pp. 242—246.

dense virgin forest; and, with the exception of about nine or ten leagues which are cleared, the rest consists of steep mountain or lake. This zone is capable of supporting sixteen millions of people. Of the twenty-one provinces and three federal territories it is only necessary in this sketch to notice at any length that of Guayana, which is not only the largest, but the most important of the political divisions of the Republic.

THE ORINOCO VALLEY.

Far away in the Sierra Parime rises this great river, but as yet its sources are a mystery; for the aborigines, driven to the wall, and cowed into submission on the lower reaches of the Orinoco, still maintain their own on its upper waters. Other tribes, who consider themselves guardians of the upper waters, are the Guasicas, who have hitherto been so successful in their resistance, that the exact sources of the Orinoco are yet among the mysteries of geography. The river is joined by many tributaries, but the length of its main course cannot be less than nearly 2,000 miles. Of this distance it is uninterruptedly navigable from the sea to the point where the Apure joins it, a distance of 777 miles, when a number of "raudals" or cataracts bar the way to vessels, though these once passed, the depth of water, and the smoothness of the river, allow of navigation for many hundreds of miles more. Altogether, according to Wappäus,* the Orinoco is joined by 436 streams, which are entitled to the appellation of rivers, and by upwards of 2,000 others of a smaller volume. These drain an area of 650,000 miles. The delta begins to form 150 miles from its mouth, at a point where a branch flows north to the Atlantic. Several of the mouths are navigable, but the main channel is usually considered the Boca de Navios, which is divided by a number of islands into two channels, each of which is two miles in breadth. The town of Bolivar, 250 miles from the sea, marks the limits to which the tide reaches. Here the river is four miles wide, and usually about 390 feet deep. On the upper water of this Venezuelan flood the scenery is varied, owing to the elevated character of the country, but from cataracts downward to the mouth, the landscape on either side is extremely monotonous, consisting as it does of llanos on the left bank, and dense forests on the right. The Orinoco, therefore, though not a river of the extent of the Amazon, yet vies with it in its capabilities as a highway of commerce. By it and its tributaries the continent might almost be crossed, while southward the Casaquiare, which is navigable almost to the Amazon, gives an inlet from the coast of Venezuela right into the heart of the great empire of Brazil. The navigation of this stream will in some future age become a busy industry. Already it is large, but nothing to what it must attain to were the resources of the country on either side of the current sufficiently developed.

STATES OF VENEZUELA.

Through the State of Guayana this mighty river flows. In 1873 the population of the province was given at 34,053, and its area at 208,369 square miles. It is thus, though

* "Republiken von Süd-Amerika," p. 47.

by no means the most thickly populated district of Venezuela, yet infinitely the largest of all the provinces into which the Republic is divided. It is also one of the



THE MIRITA PALM (*Mauritia flexuosa*) OF TROPICAL AMERICA.

richest. Cotton grows wild, the forests abound in fine dye and cabinet woods, cattle are bred in such quantities that all Europe ought to be supplied with beef from the herds that pasture on the llanos, while it is a tradition as old as the days of Raleigh that in the province of Guayana are rich gold mines. It was in this region

that Raleigh sought for the city of El Dorado, as the Spaniards had done before him. Milton even refers to the

“——— Yet unspoiled

Guayana, whose great city Geryon's sons
Call El Dorado.”*

Guayana is not unspoiled, for the gold mines of the Yuruari, in the Caratel district, yield considerable amounts of the precious metal, both for alluvial and quartz mines. Guayana being separated from the other provinces of Venezuela by the Orinoco, is practically independent of the revolutions at Caracas, and for a South American State enjoys comparative immunity from the endless revolts which rack these uneasy lands. The appearance of the country is flat in the extreme. Near the mouth of the river the forest seems to rise almost out of the water, so little is it elevated above the level of the bed. Here there are scarcely any open spaces, dense forest being the rule, and llanos the exception. Birds are frequent in this primeval jungle, the commonest being a species of kingfisher, called *chequaku* by the natives, while the scarlet ibis is a frequent object by the water's edge (p. 101). A few Guarano Indians have their homes in the unhealthy delta, and slender-looking houses their homes are. “A roof of thatch, supported by four or six upright poles, constitutes the dwelling-place of the redskins. Here they sling their hammocks, on which they lounge by day and sleep at night. They cultivate a little sugar-cane, and a few plantains, fish, or they sit in the canoes, and ‘loaf’ about, without any other settled occupation. About a dozen of them came down to the shore to see us go by. Their clothing was most scanty—nothing more than a few square inches of calico fastened by a string round the waist. A yard or two of calico, and a ball of string, would furnish the clothing of an entire family. Their personal appearance is not prepossessing; the skin is of a reddish-brown colour, the cheek-bones projecting, the nose aquiline, and the hair black and straight.”† Such at least is Dr. Le Neve Foster's opinion. There is nothing except these Indian hamlets and a few plantations to interrupt the serried mass of forest on each side of the river, and the labourers who turn out to see the steamer pass, or the few boats making their way up or down the current, are about the only objects connected with man to show that an attempt has ever been made to “spoil” Guayana. Higher up the river towns begin to appear—Barrancas, with a wooden cross in front at the water's edge, and behind a few wooden houses and palm-trees, Guayana Vieja, La Tablas, and higher up Angostura, or Ciudad Bolivar, the capital of the province. Still, the scenery is not striking; low hills bound the view, some showing grassy slopes, with a few trees, and others covered with forest; but the river itself is a magnificent stream, muddy, it is true, but a mile or two in width, and impressive from its magnitude, if not from the beauty of its banks.‡ Ciudad Bolivar is not a place to haunt the memory, though for Guayana it is an important town. The streets are regularly laid out at right angles to each other, paved with rough stones, and with a brick footpath at either side. The stores are of stone or brick, all whitewashed, and roofed with red tiles. The streets are sleepy in

* “Paradise Lost,” Book XI., v. 406.

† See also Plassard: “Bulletin de la Société de Géographie, Paris,” 1868, p. 568.

‡ “Illustrated Travels,” Part IX., p. 262.

the extreme, no carts being seen in them, and all the transportation of goods being effected by means of men and donkeys. The streets along the river banks are, however, brisker. Here *lanchas*, or river boats, may be seen landing hides from the upper Apure, which are afterwards to be transhipped on vessels bound for Europe or North America. In addition to hides they load with deerskins, tonka beans, balsam of copaiba, and possibly the famous Angostura bitters, though we believe that most of this staple is now made in Trinidad, and a good deal much nearer Europe—to wit, in Hamburg. Bolivar is, in some works on Venezuela, stigmatised as the home of yellow fever. These malaria-haunted towns of the tropics have so much to answer for in the way of iniquity that a little more or less will not seriously make or mar their reputation. However, the strict accuracy of the geographer compels us to admit that in this respect Ciudad Bolivar has been unjustly treated. There is yellow fever within its bounds, but not often. Alligators, however, make up for the absence of "yellow jack," and there are tales of river-side people in this delightful place having been snapped up by the spectacled cayman while standing at the doors of their own houses. Whatever may be the evil reputation of Guayana, at present one of its earliest explorers had a very different opinion of it, for Sir Walter Raleigh thus writes:—"Moreover, the countrey is so healthfull, as one hundred persons and more which lay (without shift, most sluggishly, and were every day almost melted with heat in rowing and marching, and suddenly wet againe with great showers, and did cate of all sorts of corrupt fruits, and made meales of fresh fish without seasoning, of tortugas, of lagartos, and of all sorts, good and bad, without either order or messure, and besides lodged in the open ayre every night) we lost not any one, nor had one ill-disposed to my knowledge, nor found anie calentura, or either of those pestilent diseases which dwell in all hote regions, and so nere the equinoctiall line."* Maturin has an area, including Cumana and the territory of Mariño, of 17,494 miles, and at the last census had a population of over 54,000. Cattle and salt are its staple products. Close by as Aragua, on the southern slopes of the Carepe Mountains, is the celebrated cave of Guacharo or Carepe. This cave is altogether 1,385 yards long, and from 70 to 80 feet in height. In the first part of it are found innumerable multitudes of the birds called Guacharos,† from the young of which in Humboldt's time the Indians made 160 bottles of fat oil yearly. The roof and sides are covered with stalactites. A shallow stream 15 to 20 feet wide runs through this part of the cave. The second part of the cave is uninhabited but the third is full of stalactites, and is inhabited by the curious animal called Lapa, which is exceedingly good to eat. Cumana (55,479 people) is remarkable for the many good harbours which it possesses, and its capital, a town of the same name, with 5,000 inhabitants, is one of the oldest of the mainland towns. It is also the focus of all the earthquake disturbances of this region, and has more than once been overthrown during the great commotions which so frequently shake the whole country. Coffee, cocoa, cotton, sugar, and

* "Discoverie of the Large, Rich, and Bowtifull Empire of Guayana," p. 112.

† *Steatornis Caripensis*, generally referred to the family of the goat-suckers, but differing widely from all the other members of the *Caprimulgidae*, in having a strong bill, and in being a fruit-eater. It is also, unlike most frugivorous birds, nocturnal in its habits, spending the day in deep dark caverns like that of Guacharo.

tobacco are its chief articles of commerce, but it also exports horses, cattle, salt, and petroleum, and a little cinchona bark. In the sixteenth century the pearl fishery was carried on to some extent in the calm water surrounding the island of Nueva Esparta, but it has now dwindled away to nothing, and its place has been taken by the turtle fishery. The sea so abounds with fish, that nets 200 yards long are drawn twice a day, and according to the information furnished by Mr. Eastwick, usually bring up from ten to twelve hundred weight of fish, and sometimes so many that it is necessary to cut the meshes and let some escape. The State of Barcelona (13,812 square miles, and 101,396 people) has much the same products as Camana, Guarico, Bolivar, Guzman Blanco, and the federal district of Caracas (around the capital), which, taken together, have an area of 33,986 square miles, and a population of 474,294, chiefly engaged in cattle rearing, though also exporting coffee, chocolate, sugar, indigo, and tobacco. The district around Victoria, a pleasant town of 9,000 inhabitants, is among the richest in the country. It is surrounded on all sides by calcareous hills, and by the most luxurious plantations, and richly cultivated gardens and fields.

The State of Apure is inhabited by the Llaneros, who are said to make the best horsemen in America. It is 18,896 square miles in extent, and possesses about as many inhabitants. Nearly the whole population is devoted to cattle rearing, and hence the "plainsmen," passing the greater part of their life in the saddle, are only surpassed as horsemen by the *gauchos* of the Pampas, further to the south. One of their countrymen, Ramon Paez, thus describes them:—"Cast upon a wild and apparently interminable plain, the domain of savage beast and poisonous reptiles, their lot is to pass all their life in a perpetual struggle, not only with the primitive possessors of the land, but with the elements themselves, often as fierce as they are grand." The Llaneros, probably owing to the fact that they are a mixed race, spring from a commingling of the Spaniard, Indian, and negro, possess a healthier and more vigorous constitution, and more energy than either the Europeans or Africans, or even the Indians, whom assuredly they excel in activity and aptitude for labour. The climate of Apure is, however, by no means conducive to industry. It is hot, though healthy. From December to February the sky over it is cloudless, but from April to August the rain falls in such torrents that during the greater part of that period the whole country is little better than one vast lake. The province then becomes impassable to all except the hardiest and most experienced of the natives. Numberless cattle are destroyed by the jaguars, the alligators, and by the yet more troublesome Caribe fish, or are drowned in the waters. Notwithstanding this, the herds abound to such an extent as to surpass all powers of description. Some idea of their number may, however, be formed from the following circumstance. It has been found impossible for any cattle owner to brand more than ten thousand animals in a year. But there were, eleven years ago, at least ten proprietors who had more than that number born in their herds annually. Consequently, they were allowed to purchase the privilege of claiming all the unmarked animals near their pastures. Now, if we consider how great must be the herd which supplies more than ten thousand fresh animals every year, and that certificates are issued to ten proprietors of their having such a herd, while many other claimants to the certificate exist, and that several thousand proprietors who possess herds of various classes below that first rank, it will be



STEAMBOAT TRAVELLING ON THE ORINOCO.

evident that the cattle must be reckoned by hundreds of thousands, if not by millions. Zamora is among the most promising of all the Venezuelan States, since it possesses, in addition to its broad grazing lands, rich arable soil, and great commercial facilities, owing to the River Domingo, which communicates with the Apure and the Orinoco, flowing through it. It has also numerous waterways in the Conagua, Apure, and other rivers, navigable waters, up and down which float a considerable trade in coffee, cocoa, hides, indigo, timber, rice, cotton, maize, sugar, potatoes, chuck-peas, tares, shoe-leather, drugs, Indian barley, brandy, horn, mules, horses, cattle, and a host of other agricultural products, with, of course, the usual amount of European goods, which the people receive in exchange for the products of their lands. Portuguesa and Zamora comprise between them 23,845 square miles, and have respectively 79,934 and 59,449 people. Cocoa, indigo, coffee, and cotton are the articles to which they are devoted. Cojedes and Carabobo, in conjunction, have an area of 8,119 miles, and a population of 85,678 and 117,605 respectively: they possess some of the richest soil and most beautiful scenery in the Republic, while their climate is reported to be "delightful." Yaracui and Barquisimeto comprise 9,352 square miles, and 143,818 and 71,689 people respectively, are chiefly mining, woodland, and pastoral States, though in the valleys cocoa, cotton, and indigo grow, and on the hills some of the finest corn in the country. Falcon is a province of 10,253 square miles, and claims 99,920 people. Trujillo (4,328 square miles, and 108,672 people), Guzman Merida (67,849 people), Tachira (68,619 people, and, with the previous State, 10,848 square miles in area), Zulia, and the territory of Goajiro (28,934 square miles, and with populations of respectively 59,235 and 29,263), and the territory of Amazonas (13,583 square miles, and 23,048 people), are the remaining political divisions of the Republic of Venezuela. Zulia is the province bordering the Gran Lago de Maracaibo. This lake, though it has an outlet to the sea, is fresh, but its well-timbered shores are unhealthy, and the soil generally sandy and poor. The entrance is impeded by a bar, which renders it difficult for vessels drawing more than nine feet of water to enter from the sea.

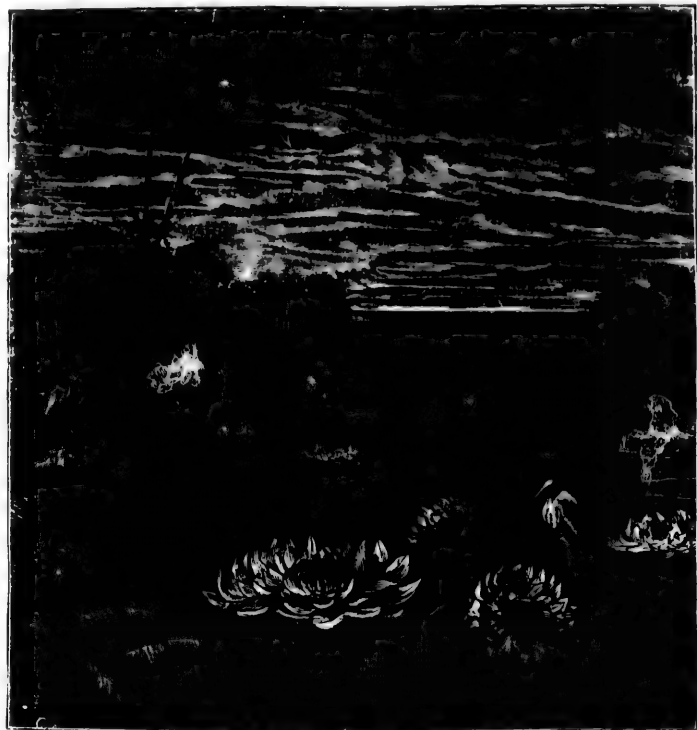
These divisions of the Republic have, however, been so often altered in extent, name, and so forth, that it is somewhat difficult to keep abreast of the tergiversations of the Venezuelan politicians or topographers. A State or two more or less, reconstructed by the desire to do honour to the "patriot" of the hour, must, however, to those outside the circle of the politics of Little Venice, be a matter of the least possible importance. Among the most remarkable features of the country is the Lake of Tacarigua, not far from the town of Valencia. The lake was in Humboldt's day over thirty miles long, but it is now only twenty-three. To his list of islets must now be added seven new ones, so that in little more than half a century the water must have sunk sufficiently to lay bare seven new places. In 1810 Valencia was only three miles from the lake; it is now nearly eight. At one time, indeed, the lake seems to have covered the site on which the city is built, but the rapid evaporation (130 inches *per annum*), the cutting down of the wood, and other causes mentioned, have rapidly decreased the feeders of this fine sheet of water. It is dotted on its borders with good plantations and much fine land. The water of the lake is fed by fourteen small streams, but is brackish, and contains four different kinds of fish. It is calculated, from what is known regarding

the diminution of the water in it since Humboldt's visit, that in 100 years the lake will have dried up. This process will leave at the end a great tract of very fertile country, while, supposing the streams which at present feed it sufficient for irrigation, the productiveness of the valley of the Aragua will be increased. The country would also increase in healthiness, for the fevers now so rife on the borders of the lake will disappear. But, on the other hand, should the streams dry up, when the moisture of the air caused by the present great evaporation discontinues, then, notwithstanding the fact of there being ninety feet of rich black soil here, the cultivation must inevitably cease to a great extent. Were the waters of the river Pao, diverted from it into the Portuguesa during the seventeenth century, again brought back, the beautiful lake might be maintained; but the Venezuelans do not seem to have the public spirit or the energy necessary to perceive a feature of the country which has been tersely described as "a glittering expanse of silver water, studded with fairy islets, rich masses of foliage of every hue, a city in the distance that seemed built of white marble, and hills that gradually swelled into blue mountains." Caracas (p. 97) is in its build like most other Spanish American towns, and were "it not for earthquakes, epidemics, insect plagues, triennial revolutions, and bell ringing, there would be few more desirable localities for a residence." Valencia is not so pleasant a place—healthy enough, cheerfully situated, but very hot. Mr. Eastwick describes it in no glowing terms:—"Nature does the business of watering the streets gratis. I had a specimen of her performance in this line on my return from visiting the churches. The sun was shining brightly when I entered the Franciscan monastery, and I stopped there only a few minutes; but on my coming out the scene was changed. In a minute or two, with scarcely any warning, clouds came swiftly over the hills: there was a sound of very subdued thunder, a sharp shower for about a quarter of an hour, and out came the sun again. This process happens daily, sometimes twice a day, in this delightful climate, when the temperature never varies more than four degrees of Fahrenheit—from 78° to 82°. In this respect Valencia resembles Singapore. Yet, the sun being vertical, it is not safe to be exposed to its rays between 10 a.m. and 4 p.m. One day a native of the country paid me a visit with his face literally flayed. 'It's all from riding about in the sun,' said he; 'so you, who are a stranger, must not attempt it. A young American, who came to Valencia last year, thought to harden, and was continually in the sun; but he died mad, just after he had told us that he had got the better of the climate.'" But in these tropical countries one town is very much the same as another town. They are all hot, all dirty, and all the home of the fourth plague of Egypt.

SOME VENEZUELAN TRAITS.

The first of these I should characterise as an aptitude for getting into debt, borrowing and never paying. Not that this is any way peculiar to the Republic in question; all the South American Governments are similarly guilty, or at least were, for the world has now got wiser than to lend them any money. The impecuniosity of Venezuela and its efforts to get money are ludicrously pathetic. "Horrible situation!" (we are quoting an official address of a late President) "not only the army was in want of the necessaries of life. Civil officials had no pay. The widows and orphans who had been pensioned were dying of hunger. The wives and

children of the soldiers on service could obtain no means of support. We called on the Custom House at La Guaira for money, and the answer was—There is none! We applied to our citizens, and found that not a dollar could be raised without the most vigorous measures. What recollections! What agony! What horror!" They then got relief by a loan, but in 1865 we find the Minister of Finance declares that "Venezuela *agonises* for the means of support." "The public revenue," writes this gushing official, "will be, instead



THE VICTORIA REGIA WATER-LILY OF TROPICAL AMERICA.

of an advantage, a calamity, if it continue to be the aim of all who thirst to grow rich at the expense of the country." But that is just what the Venezuelans, like most South Americans, invariably do. *La mejor hacienda es el Gobierno mal administrado* is a proverb which requires no translation in these lands; for every one knows what is the meaning of the best estate being the government ill-administered. Nobody looks for an official to be honest, and indeed to rob the country is not considered dishonest. Mr. Eastwick some years ago went to Venezuela to relieve the Venezuelan "agony" for the want of money, and if possible to get some interest for that which he and his fellow victims had already lent the impecunious republic. "How is it," he asked an intelligent native, whose father had

been an Englishman, and therefore still retained something of an intelligence not utterly warped by prejudice and self-conceit, "that this country is so wretchedly poor, and so eternally borrowing money? You haven't a particle of shame. Your Government House looks like an East Indian go-down. Your great men make no display, and as for your soldiers, one would think that the last successful campaign had been against the *fripiers*, and that the victors were carrying off the plunder on their backs. It is evident that you Venezuelans are not extravagant, and it is plain that you have great resources if you knew how to use them. Your soil is the richest in the world, and has never been trodden by any invader since the Spaniards were driven out. Then what is the reason that you are always borrowing from other countries? How is it, too, that while the United States of North America have made such progress, the population in your republic is all but stationary, the seas and rivers without steamers, the country without roads, and commerce languishing?" In substance I have already given the answer (pp. 70-76). The people want energy, and they want public spirit. The Spaniards kept them at peace, and gave them a kind of prosperity. But they also kept them ignorant of the art of self-government, and set them an example of the narrowest policy, and the worst of all political economy. When they were ousted from the country four-fifths of the population could not read, for there were no schools, and even in the capital there was no printing-office until 1816. But even had the Venezuelans had a better political training, it is doubtful whether they would have been any better financiers. The Creoles have many good qualities, but a love of physical labour is not one of these. They are sharp-witted enough, but if the country were to be dependent on their labour, it might go to ruin: the Indians and the mixed breeds do all this. Again, the taxes levied by the Spaniards—the alcabala, or excise, the armada and corso, or coast taxes, the medias anatas, or deductions from salaries, the monopolies of salt, cards, cane, liquor, and tobacco, and numerous other imports—were all so odious to the new nation that as soon as they declared themselves independent, they made a clean sweep of them, leaving only the customs to supply a public revenue. Now, of all taxes which a country with a coast line of 2,000 miles could have imposed, this was, perhaps, the worst. Smuggling goes on wholesale. Of 200,000,000 dollars worth of goods imported into the country during the first sixteen years of independence, 129,500,000 dollars worth were smuggled. These are official figures. In addition, such are the venality and corruption of the custom-house officers, up to 1852 it was calculated that 101,500,000 of dollars were stolen by these revenue collectors. At present the loss to the government by contrabands and frauds of all kinds is believed to be not less than 6,000,000 dollars *per annum*. But this is not based on accounts published in Venezuela. If other countries did not publish the amount of their exports to Venezuela no one would really know what is brought into the country. It is only by comparing the home fictions with the foreign statistics that the real extent to which the government is cheated is known. Take one example:—The custom-house returns only show a consumption, per head, of a quarter of an ounce of soap per week, which, even making a liberal allowance for the uncleanness of the proletariat, is giving them too little of this taxed toilet requisite. Again, it is well known that the district of Caracas alone consumes a hundred barrels of flour a day, yet the custom-house makes out that the daily con-

sumption of all Venezuela is not sixty-nine barrels. Hence the treasury is chronically empty, and there are no remittances to the capital except from La Guayra and Puerto Cabello, where the Federal Government exercises some control. The other States coolly appropriate the customs revenue for their own purposes, considering that they are committing an act of great generosity, and not a little of softness also, when they send anything to the Federal Treasury in Caracas. "Of course the only resource is to borrow in foreign markets." The Venezuelan Constitution—like most paper toys of that description—looks well enough in books, but works "badly" in practice. The individual States attend but little to the orders of the general government, and Caracas, as Humboldt long ago pointed out, is so situated as to be unable in so wild a country to exercise much control over the individual States of which it is the federal capital. Add to this the overweening conceit of the people. If still waters run deep, some one remarks that the patriotism of the Venezuelans must be very shallow, for it is very noisy. They consider themselves—as Colonel Chollop did his countrymen—"the flower of the airth," and talk accordingly. To the English the Venezuelans were indebted for their freedom, and to English money for the doubtful benefit of being saved from an early bankruptcy, and as a matter of course no nation is looked upon with such jealousy as the English, albeit all foreigners are disliked, probably for one reason, among others, that they cherish Old World notions about the propriety of a nation paying its debts. Here is a case in point:—The Quebrada mines, once the private estate of Bolivar, is now the property, by purchase, of an English company. A railway has been built, and among means taken for the development of the district, the new and flourishing part of Tucacas has been established. Yet it is in vain that we look for any acknowledgment of this in the Caracas newspapers. On the contrary, we learn that the entire enterprise was due to the President of the day—to his talent, liberality, and—save the mark—to his engineering skill and public spirit. The name of Englishman is never mentioned. Even when, at the inauguration of these works, President Blanco thought fit to speak in generous terms of those whom Bolivar, after the decisive fight of Carabobo in 1821, called "salvadores de mi patria"—saviours of my country—the press did not care to report his words. It is true that honest journalists have sometimes found that there were inconveniences in plain-speaking, and the *Culabooze* of the country is, as Mr. Mercer remarks, "an institution which most are satisfied with hearing of, and with which they have no desire to make acquaintance. Again, because they have succeeded in throwing off the Spanish yoke, it does not follow that they have achieved liberty, and they would do well to be less persistent in their mockery of that sacred word." Hence British capital does not affect Venezuela. Its connection with that country has been too often one of schemes begun and never finished, or more fortunate, of "concessions" granted, but not accepted, to the extent, at least, of money being sunk in them. The Venezuelans hate Trinidad, because it gives shelter to their malcontents, and they hate Curaçoa, because there Dutch enterprise comes out in only too strong relief to their listlessness. I am well aware that contrary opinions have been expressed, and, indeed, I have before me at the present moment some of these eulogia of the Venezuelans. It will, however, be generally found that the gentlemen holding or affecting to hold these views are *concessionnaires* of railway, mining, telegraph, or other grants, and are inspired by that gratitude which

Rochefoucauld defined as a "sense of favours yet to receive." It might be curious to ascertain these gentlemen's opinions twenty years hence. The "ingratitude of republics" has grown into a proverb, but of all republics, those of South America are the most unmindful of the favours they have received. Possibly, also, they are marked among nationalities for possessing but few citizens deserving very well of their native land. Still, Bolivar did great things for "Colombia," albeit in private life he was contemptible, and even not faultless, if we are to credit the testimony of his contemporaries in his public career.* Yet he was allowed to die in exile in want of the necessities of life. Possibly his countrymen in whose behalf "he ploughed and sowed the sea," imagined that by giving him lofty titles, such as "Liberator," they had fully recompensed him for his toils and his losses. In the same way they decreed General Falcon the title of "Gran Mariscal," and Paez the empty glory of being called the "Illustrious Citizen," yet Paez, like Bolivar, died in that exile in which he passed the greater portion of his life. The people are lazy beyond anything which we in the northern climates can imagine. The only toil they are fond of is fighting. Hence the planters try as far as possible to get women as labourers, for they work nearly as well, and cannot be taken for soldiers. It is recruiting that ruins the agriculture of the country, and hence the landowners are very apt, when they hear of a revolution having broken out, to pack off to the mountains all their able-bodied labourers, who return when the dogs of war have satisfied their appetite for blood and liberty. The army of Venezuela consists nominally of 5,000 men, but every citizen from the eighteenth to the forty-fifth year inclusive must serve in the national militia, by which later civil wars have been almost entirely carried on. Miserable-looking *militaires* they seem to be, from the account of an eye-witness. Here is a picture—not flattering:—"I have seen troops of all nations, civilised and uncivilised, from China to Peru, but never any like these. Some of the officers, indeed, were tall and well made; but the men were the strangest figures—lean old scarecrows and starveling boys not four feet high, the greater number half naked, with huge strips of raw beef twisted round their hats, or hanging on their belts. Their skins seemed to have been baked black with exposure to the sun, and their arms and accoutrements were of the most wretched description. Yet they were not contemptible—far from it—rather weird, repulsive—a sight to make one shudder. My first thought on seeing them was 'what could want, miasma, exposure, or fatigue do to harm these animated skeletons? Could anything make them blacker, grimmer, more fleshless, more miserable?' But in this very wretchedness consists their strength; for European soldiers could not exist when these men would thrive." For long Venezuela was divided into democrats and aristocrats, or oligarchs—"Godos" (*Goths*), and "Epilepticos" (*Epileptics*)—as the slang phrase was. The colours of the one party was yellow, of the other red, and such was the fury which civil strife excited in these half-civilised militiamen, that a child or a woman wearing the obnoxious colour would have run as excellent a chance of being slaughtered as the wearer of an orange waistcoat does on St. Patrick's Day in Cork. The Venezuelans are in private life a very hospitable and rather kindly people. But no

* "Journal of an Expedition 1,400 miles up the Orinoco," by J. H. Robinson, late Surgeon in the Patriotic Army (1822), p. 301, &c.

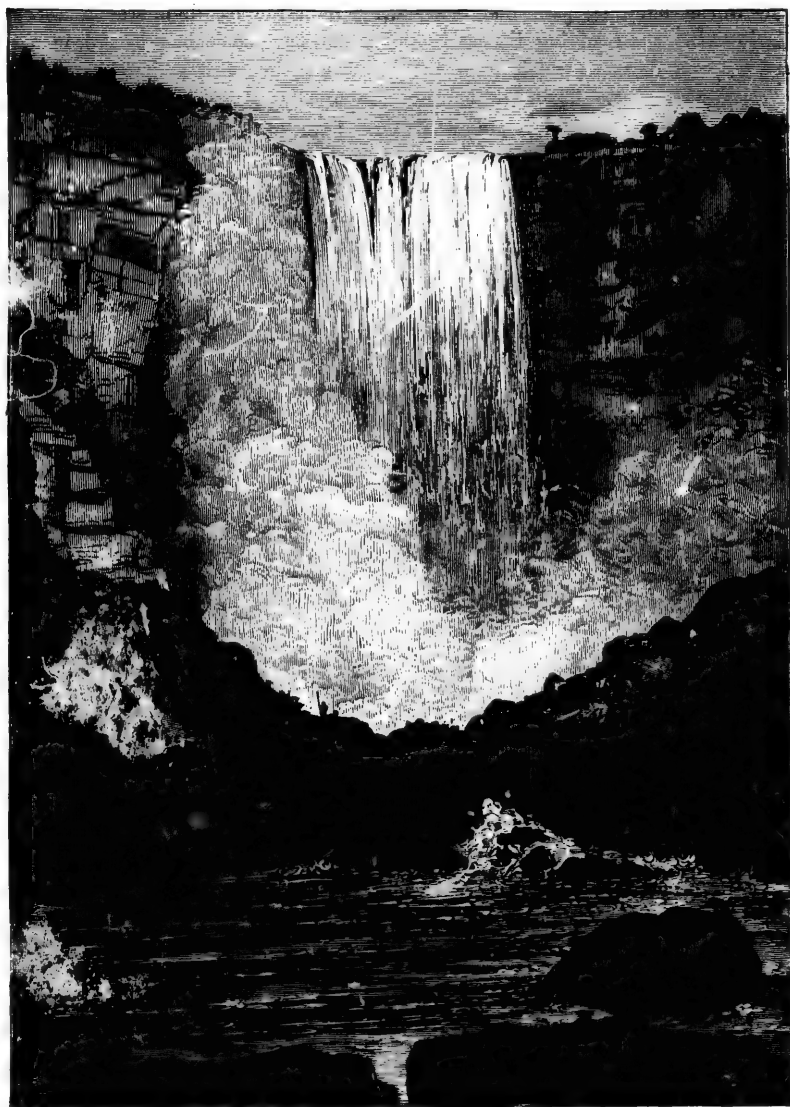
sooner do they get into uniforms than it is dangerous for a humble civilian to approach them. In a linen jacket, Don José is most harmless, even when intoxicated; in a scarlet coat, El Capitan is a truculent mortal, fierce to behold. This makes Venezuela in war time rather an uncomfortable place to live in, as the chances are that your tailor will be a colonel; indeed, a traveller describes being measured for a pair of trousers by one of these military sartorial magnates, clad in full uniform, spurs, sword, and all. He was a most dignified personage, and his dignity was doubtless charged in the bill. And here, it may be remarked, that Venezuela is an unconscionably dear place, custom-house extortions making imported goods necessarily expensive, while labour amongst so lazy a people is also naturally an expensive commodity. Yet immigration is for Englishmen and Americans not desirable. An energetic high-spirited race could not long tolerate the *laissez aller* disposition of the government, the instability of the law, and the utter listlessness of the people. The country has now enjoyed a comparatively long interval of peace. But how long this will last it is impossible to say. Roads which do not exist on a great portion of the country, and railways which must for a long time to come be mere dreams, may alter the state of matters. But meantime wise men will leave Venezuela to the Venezuelans, notwithstanding its riches, which are varied and great. What these are we have already indicated, and some of the more remarkable, which are common to the neighbouring countries, we may have occasion to refer to in the next chapter.*

CHAPTER VIII.

GUIANA: BRITISH, DUTCH, AND FRENCH.

"A SWAMPY forest, as big as France and Spain put together, with a huge drain running through the middle of it, full of snakes, jaguars, and alligators, with plantations here and there, and a sprinkling of savages who think ant paste a luxury," was the unflattering description of the country we are now about to describe, given, we believe, by a Hibernian officer fonder of epigrammatic conciseness than of strict accuracy. The borders of Guiana—under which we do not include, of course, the Venezuelan State of the same name—is an ill-defined region stretching along the coast, south of the Orinoco, and back some distance into the region which naturally belongs to Venezuela, though the greater portion of the colonies of Britain, Holland, and France, which go under that name, are formed out of a huge slice of North-eastern Brazil—comprising, in all, nearly four and a-half degrees of latitude—the coast-line being 650 miles long, and the extent inland from 280 to 550 miles. The coast is in general low, and covered by a dense lush of mangrove and curida (*Avicennia nitida*), behind which rise up lofty palms, with their feathery heads, and here and there the tall chimneys of the sugar plantations. Inland, a low, unbroken level, covered with a rich tropical vegetation, extends from ten to forty miles. It is wholly

* For the Botany and Zoology, see more particularly A. Ernst: "Estudios sobre la flora y Fauna de Venezuela" (1876).



VIEW OF THE KAIETUR FALL, BRITISH GUIANA.

alluvial, and rests at depths varying from 50 to 200 feet, on granitic rocks; the strata, consisting of clay, sand, and vegetable matter, are impregnated with oxide of iron and salt, except along the banks of the rivers. These carry out to sea large quantities of

sediment, which, mingling with that borne along from the mouth of the Amazon by the equatorial current, and colouring the sea 100 miles out, have no doubt produced, in long ages, the vast alluvial deposits which form the broad maritime belt and rich settled districts of the colonies (Bryce). These settlements are usually along the banks of the rivers, and a few feet below their level, so that they have to be protected from overflow by means of levees. Behind the alluvial districts extends a wall of sandstone, making, no doubt, the old shore line, when the coast lands were still under water. Still further inland is another ridge of hills, probably marking a still older range of sea cliffs. From this range stretches back a table-land which gradually ascends until it reaches a height of 2,500 feet. The rivers in their descent from this elevation form a series of cataracts which usually stop all navigation, at a distance of from 50 to 100 miles from the sea. The cataracts of the Orinoco belong to this series. The highest of the Guianan cataracts is the Kaieteur Fall, of the River Potaro, a tributary of the Essequibo, where a great body of water tumbles over a cliff 822 feet high, 741 feet being perpendicular descent* (p. 117). From this plateau the mountains rise in irregular groups, and are lost in the mountain system already described, or in the great llanos of the Orinoco, Rio Negro and Amazon. The climate is foggy, though a European soon gets acclimatised to it. The land breezes are the most dangerous, because they bring miasma from the low-lying lands in the interior. For the same reason the sea breezes are healthy, as they sweep off the fever-breeding vapours that would otherwise collect in the hollows of this flat region. Cayenne, or the French section of the country, is the worst, but no part of a country which has a rainfall of from 128 to 103 inches, and a temperature varying from 100° on the southern coast to 60° on the hill districts in the interior, can be free from intermittent and bilious fevers and ague. Yellow fever is, however, absent. Earthquakes are not uncommon, but comparatively mild, though the hurricanes which desolate some of the West Indian islands are unknown. There are rarely any springs, the inhabitants depending on stored-up rain-water. The various rivers communicating often by navigable channels, which ramify all over the country, make travel, which would otherwise be difficult, much easier than in many of the more mountainous regions to the north, or even to the south, where, owing to the impenetrability of the forests, people living only a few miles from each other have to spend a day in going up one river and down another before they can pay visits. The forest region proper only commences in Guiana about forty miles from the coast, and clothes the mountains to their summits. They contain many valuable trees, such as the mora (*Mora excelsa*), the king of the forest, which reaches a height of 120 feet, the greenheart, or siperi (the timber of which makes fine planking, while the seeds are febrifugal), the bully tree, the cumara, or tonka bean, the carana, or cedar-wood, the hucoya, or iron-wood, the letter-wood (a costly timber valued for veneering), the simiri, or locust tree, the yaruri, or paddle-wood, and many other species. Sir Robert Schomburgk, one of its earliest and ablest explorers, so lucidly describes this region that I may be allowed to conclude this general sketch of Guiana by an extract from one of his reports:—"The coast, washed by the waves of the Atlantic Ocean, is covered with mangrove and curida bushes, and presents a verdure of perpetual

* C. B. Brown: *Proceedings of the Royal Geographical Society*, Vol. VI., p. 122, and "Canoe and Camp Life in British Guiana" (1876).

freshness, forming, as it were, a seam or fringe to the rich carpet behind. These are enlivened by numerous flocks of the scarlet ibis, the white egret, and the splendid flamingo, which, disturbed at the approach of an intruder, soar into the air, or perch on the summit of the trees. Where cultivation has not stamped its seal on the landscape, the marshy plain changes to savanna, resembling the meadows of Europe, watered by rivers and limpid streams, interspersed by groups of palms or tufts of trees. On ascending the great rivers, which have been happily called the 'veins of the country,' we find them covered with verdant isles; and as we approach the primitive forests the landscape assumes the features peculiar to the tropics. It appears as if the power and strength of productive nature, in recoiling from the Poles, had collected itself near the equator, and spread its gifts with open hand, to render its aspect more imposing and majestic, and to manifest the fecundity of the soil. Gigantic trees raise their lofty crowns to a height unknown in the European forests, and display the greatest contrast in the forms and appearance of their foliage. Lianas cling to the trunks, interlace their wide-spreading branches, and having reached their summit, their aerial roots descend again towards the ground, and appear like the cordage of a ship. Clusters of palm-trees, of all the vegetable forms the most grand and beautiful, rise majestically above the surrounding vegetation, waving their pinion-like leaves in the soft breeze. Nature, as if not satisfied with the soil allotted to her, decorates with profuse vegetation the trunks and limbs of trees, the stones and rocks. Even the surface of the water is covered with a carpet of plants, interspersed by magnificent flowers. What could better give an idea of the luxuriance and richness of the vegetation in Guiana than the splendid *Victoria regia*, the most beautiful specimen of the flora of the Western hemisphere (p. 112)?* The calm of the atmosphere, where frequently no breath of wind agitates the foliage, no cloud veils the azure vault of heaven, contrasts strangely with the hum of animated nature, produced by insects of every kind. The humming-bird, with its metallic lustre, passes rapidly from blossom to blossom, sipping the nectar of fragrant flowers, or sporting with the dewdrop which glitters on its leaf. It is usual to deny to the birds of the American forest all melody. Many are the feathered songsters which enliven the forest. Although they may not vie with our nightingale in melodiousness of tone, they are not devoid of it. Night approaches, and displays the firmament with all the splendour of the Southern constellations; the musical notes of birds now give place to the chirping voices of crickets, the sound of the tree-frog, lizards, and reptiles. Thousands of phosphorescent insects flutter among the foliage, emitting a light which, if it does not illuminate, assists to increase the characteristic features of a tropical night."†

BRITISH GUIANA.

This colony is sometimes called Demerara, although in reality it includes the settlements of Demerara, Essequibo, and Berbice. It extends from east to west about 200 miles, and

* This magnificent lily, now not uncommon in our hothouses, was introduced into Europe by Sir Robert Schomburgk, from the River Berbice, in 1837. In conjunction with azure-coloured *Pontederia*, various bladderworts, a species of *Polygonum*, *Pistia*, and various grasses, cover the whole surface of the river, so as to impede navigation.

† "A Description of British Guiana," p. 31. See also his "Reisen in B. G." (1840-1846); Dalton: "History of B. G." (1855); Appun: "Unter den Tropfen" (1871); and for natural history, the works of Bancroft, Stedman, Robert and Richard Schomburgk, Charles Kingsley, and Barrington Brown.

though its boundaries between Venezuela and Brazil respectively are undetermined, yet it has been computed to contain an area of 76,000 square miles.* The territory was first partially settled by the Dutch West India Company in 1580, and from time to time has been held by Holland, France, and England. In 1802 it was restored to the Dutch, but in the following year retaken by Great Britain, to whom it was finally ceded in 1814. Under the Dutch, Demerara and Essequibo constituted one government, and Berbice another.



NEGRESSES OF DUTCH GUIANA.

This arrangement continued in force under the British administration down to the year 1831, when the present mode of administration came in force. The Dutch law is, however, still in force in civil cases, but the criminal law is administered without the intervention of a grand jury, though otherwise in the same manner as in Britain. The government is also essentially that of the old Hollandish days, and it works so well that the Demerarans are quite content to live under the system which the Batavians devised. The only two towns of any importance are Georgetown and New Amsterdam, and the cultivated districts are confined to the coast and a short distance from the river banks. At one time coffee and

* If the Brazilian and Venezuelan claims were admitted this area would be reduced by 50,000 square miles.

cotton were extensively cultivated, but at present the colonists concentrate themselves on the production of sugar, rum, molasses, and rice, and on the exportation of timber. In 1875 there were exported £1,068,378 worth of sugar, £340,397 worth of rum, £79,281 worth of molasses, £86,972 worth of rice, and £45,170 worth of timber. The country may be said to be prosperous. In 1865 the revenue was £379,392, and the expenditure £300,894. Then for a few years the income fell off, while the expenses increased. This unsatisfactory state of matters ceased in 1869. In the latter year the revenue was £311,377,



A VILLAGE IN FRENCH GUIANA.

and the expenditure £293,636. From that time the revenue has steadily increased, though at the same time the expenditure has swelled out to proportions even greater. For instance, in 1874 the first stood at £175,885, and the latter at £485,893;* in 1875 it was £352,137, and £355,979. In the same year the public debt was £403,537. In 1875 the imports were valued at £1,837,158, and the exports at £2,337,122, most of which were to the United Kingdom. In 1871, the total population was 193,491, of whom 113,570 were natives of the colony, 13,385 of the West Indian Islands, 7,925 of Madeira and the Azores, and 9,635 of "other places." In 1875 the population, exclusive of aborigines, was estimated at 212,000. In addition, there were "under indentures" the following "coolies" and labourers:—33,360 natives of India, 3,875 Chinese, and 362 Africans; 37,597 in all. In 1871, the aboriginal

* Exclusive of the sums raised for and expended by the planters on immigration of coolies.

Indians were estimated at 7,000, though the best authorities carry the number as high as 20,000 or 21,000, but the number of the tribes within the British territories vary, and are at all times very uncertain.* The coolie system has, of course, been a very contested one. One set of philanthropists, who love the negro better than the planter, declare that the Asiatic is a vicious individual, a corrupter of good morals, and an eater of the Ethiopian's bread. Another set quite as acrimoniously points out that the coolie is treated spitefully by the planters, who have accordingly had to be looked after by Royal Commissions, and generally taught their duty. We daresay the men who have been so long accustomed to consider a white face as a patent of nobility do not go out of their way to coddle the indentured Asiatics. But on the whole they are tolerably well off, and quite as well as ever they were in their own country. They are not moral, certainly, and in no point of view an example to any virtuous family. But as they were not brought from the East to be ensamples to the planters or their ex-serfs, their morals are not a subject about which the Demerarans particularly distress themselves. Moreover, as there are within the bounds of the colony clergymen of almost every Christian sect—in addition to Mahomedans and Buddhists—the planters devote themselves to sugar and rum with a light heart. Whether the colony deserves the eulogium of Mr. Anthony Trollope as being "the actual Utopia of the Caribbean Sea," it would perhaps be rash to say. Utopias are rare nowadays in these regions. Still, in energy, wealth, and self-reliance, British Guiana presents a marked contrast to the absence of all these colonial *necessaria vite* in Jamaica.

DUTCH GUIANA.

Surinam—as this colony is sometimes called—is immediately south of the British colony, from which it is separated by the Corentyn river. It has an area of about 60,000 square miles, and a population of over 70,000, including 17,000 "boschnegers," or bush negroes, descendants of the Caribs and runaway slaves. In 1875, the exact civilised population was 51,329. The deaths exceeded the births in that year, of whom only 5,000 are Europeans, and about the same number Chinese. Its products and general appearance are much the same as those of British Guiana. The country is not, however, so well developed, and in the hilly regions of the interior and south the country is held by the bush negroes, or runaway slaves, and is altogether uncultivated. In 1876 there were 300 plantations, while the expenditure was £94,047, or nearly £24,000 short of the revenue. This deficit had to be met by the mother country. Slavery prevailed up to 1863, when the Government emancipated the slaves at a cost of £25 per head, which was paid to their "owners;" but for ten years afterwards the freedmen were put under Government surveillance (p. 120). The Dutchman carries his "institutions" with him everywhere. Hence British Guiana has canals, dykes, sluices, irrigation, and all other good things Batavian, which she inherited from the Dutchmen who laid the foundations of her prosperity. But when the voyager first approaches the Dutch Guianan coast he is rather astonished at the absence of any signs of cultivation, or even of human habitation. From Berbice to the Pomeroon—or near to it—the eye meets a succession of tall chimneys marking the coast-line and the spots where industry has

* Colonial Office List (1876); Statistical Tables relating to the Colonial and other Possessions. Part XV., 1871-5 (Parliamentary Blue Book, 1878).

converted the haunts of alligators, snakes, and mosquitoes into a thriving colony. Along the Surinam shore nothing like this is seen. The explanation is, however, easy. A long range of swamps, difficult to drain, shuts off the coast of British Guiana from the high lands of the interior. Hence cultivation is chiefly limited to the former region, and the plantations in it are placed side by side on the long strip between the ocean in front and the morass behind. In Dutch Guiana circumstances are different. There, the swamp is on the coast. Accordingly, most of the plantations are either on the river banks, or back from the shore, where the voyager cannot see them. Paramaribo, the capital of the colony, on the Surinam River (Plate XXIV.), is a thoroughly Dutch town of 23,000 inhabitants, clean, comfortable, tree-embosomed, and even handsome. There is about it, according to Mr. Palgrave's account, a sleepy lotus-eating air, "very calm and still, yet very comfortable and desirable withal." The traveller who lands here feels as did those who—

"In the afternoon . . . came unto a land
In which it seemed always afternoon."

The atmosphere is like that of a hothouse and of a vapour bath combined. The air you breathe up these Guianan rivers is the air of a country only $5\frac{1}{2}$ degrees north of the equator—which has blown over the great moist plains, brimming river marshes, and dense forests that constitute nine-tenths of the Guianas and Brazil. Fifteen miles of wood and swamp cut off from the sea-breeze what there is of it in the tropics. Hence in Paramaribo the air is that not of wind-swept Barbadoes and dry Antigua, but that of the "moistest among all equatorial continents." Yet the place is said to be not unhealthy, and as the wealth that pours out of it shows, all energy is not washed out of the people in the steaming perspiration which pours out of their lank bodies. Surinam is really Holland under another sky, just as Paramaribo is Amsterdam, or the Hague by other waters. "This it is," writes Mr. Palgrave, "that gives Paramaribo its twofold character at once European and tropical, Dutch and Creole—a blending of opposites, a dual uniformity, an aspect that when first beheld leaves on the mind an impression bordering on unreality, as if place and people were imaged in a hot, unpicturesque dream. Yet Paramaribo is no dream, nor its inhabitants dream-shapes: very much the contrary. In fact, no capital town throughout the West Indies, no offspring of European strain, French, English, Danish, or even Spanish, so generously or truthfully represents the colony to which it belongs as Dutch Paramaribo. Contrary examples are easily adduced. Thus, for instance, Jamaica is pre-eminently the land of English country gentlemen, of magistrates, landlords, farmers, and in tone, ways, and life, an English country district; while Demerara is in no small measure an English, or, rather, I should say, a Scottish manufacturing district; Barbadoes an English parish magnified, not an island. But neither Jamaica, nor Demerara, nor Barbadoes, possesses a correct epitome of itself in Kingston, Georgetown, or even Bridgetown: each of these three seaports has a character of its own, distinct from, and in some respects opposed to, the colony at large. This is due to many causes, and most of all to the mixed multitudes of trades, the camp-followers of enterprise, who, under whatever banner they congregate, acknowledge in heart and life no flag but that of individual self-interest. These are they who muster strongest in the

generality of colonial towns, especially seaports, and tinge, if they do not absolutely colour, the places of their resort. And thus from the merest port of call along these shores to Georgetown, where it is decidedly at its maximum a something of a restless make-shift egotistic 'Cheap Jack' admixture, obscures, or at least jars with, the public-spirited nationality, unsettles the population, debases the buildings, ungroups the unity, and deforms the beauty of place and site. With Paramaribo it is otherwise."

The colony itself is a Crown colony—that is to say, the Governor gets his appointment from the King, and holds himself responsible to the Colonial Office at the Hague alone. There is a House of Assembly, of which he is President, composed of four members nominated by himself, and nine elected by the people, who pay taxes to the amount of forty guilders per annum. Its powers are, however, merely advisory, or deliberative, and really exercise little check upon the Governor. Still, the country is justly ruled, and not over taxed. In 1873, there were actually under cultivation 27,817 acres, of which over one-half was assigned to sugar, one-half again of the remaining land to cocoa, and the residual quarter divided among coffee, cotton, bananas, and the mixed gardens of provision grounds. Population is wanted for the colonies. Coolies are imported, but they do not altogether meet the want, while the negro and the half-wild race of the bush negroes are not yet thoroughly available for cultivating the land. The land is rich—beyond the power of its fertility being exaggerated—but it is impossible for white men to cultivate it. Various attempts of the kind have been made, but all of them have been failures. There are no mines as yet known among the mountain ranges in the south of the Guianan territory, and long may they remain undiscovered should they exist. It is now nearly three centuries since Bacon pronounced the sentence, which subsequent experience has only ratified, that "the hope of mines is very uncertain, and useth to make the planters lazie in other things." Mining would soon ruin Surinam, and even the gold diggings in Venezuela have not acted favourably on the European colonies in their vicinity.

FRENCH GUIANA.

Cayenne, or French Guiana, lies between the rivers Marowayn and Oyapock, which separates it from the Dutch colony on the north, and Brazil on the south. Its area is 28,000 square miles, though its boundaries are not well defined, owing to the Dutch and Brazilian Governments claiming portions of it. In 1874, its population was 16,414, the division according to sexes being 7,839 males, and 8,575 females. This is not more than half of what the population was in 1868. There were in the same year 76 marriages, 454 births, and 1,236 deaths.* In addition to the mainland there are several islands off the coast, the chief of which is Cayenne, which is the capital and almost sole port. Its physical geography presents no marked features to distinguish it from the divisions of Guiana already described, nor are the products different, viz., ornamental woods, rice, maize, coffee, cocoa, sugar, nutmeg, cloves, and pepper. The colony has been occupied by the French since 1633, though it is only since 1854 that Cayenne has been made the chief penal settlement of the country. Any one condemned to eight years'

* "Tableaux de la population et des colonies françaises pour l'année, 1874."



VIEW OF THE ORGAN MOUNTAINS, IN THE PROVINCE OF RIO DE JANEIRO, BRAZIL.

expatriation must reside for the rest of his life in the colony. As a matter of fact he generally escapes; but he is not expected to do so. However, such is the nature of the climate, aggravated by the conditions of life among the convicts, that the mortality is very great, though, as the Government does not include the deaths in Cayenne among the general tables of mortality, there are no data to go upon.

CHAPTER IX.

THE EMPIRE OF BRAZIL: THE AMAZONS.

IN the year 1499, Vicent Yañez Pinçon, one of the companions of Columbus, sailing southward of the lands which were then known to the Spaniards, when near St. Augustine's Cape sighted what is now known as the Empire of Brazil. He went as far south as the Amazon river, but made no settlement, contenting himself with taking possession of the country in the name of his most Catholic Majesty. The possession was, however, short-lived, for next year Pedro Alvarez Cabral, admiral of a fleet sent by the King of Portugal to follow up the discoveries of Vasco de Gama in the East Indies, again took possession of the country in the name of his sovereign, and the Portuguese retained it as one of their colonies for more than three centuries, with some more substantial results than the formal flag-hoisting of El Capitan Pinçon. This was on the 28th April, 1500. But like his predecessor, Cabral founded no settlement, and after acquainting the court with his discovery proceeded on his way to India. The honour of colonising Brazil must be given to the celebrated Amerigo Vespucci, a man much maligned, on account of the tradition that in some manner or another he plotted to get his name applied to the new continent, and thus deprived Columbus of the just honour to which he was entitled. Be that as it may, Vespucci, who had entered the service of the King of Portugal, remained in Brazil—or as it was at first called Vera Cruz and Santa Cruz—four months, and finally, after building a fort and leaving twelve men to garrison it, set sail for Lisbon with two ship loads of Brazil wood, monkeys, and parrots. Its history may hereafter be briefly summed up. Colonies were established under the auspices of the Crown, in 1531, and in 1549 a colonial government was formed. After the annexation of Portugal to Spain, in 1580, Brazil suffered much from the enemies of that country, the Dutch and French nearly capturing the province. The restoration of the house of Bragança to the throne of Portugal resulted in the erection of Brazil into a principality, and the title Prince of Brazil was conferred in 1640 on the heir apparent to the throne. In 1807, when Napoleon declared war against Portugal, the Prince Regent, afterwards João VI., took refuge with his family in Brazil. Restrictions were then removed from her commerce, and in 1815, on the fall of Napoleon, Brazil was raised to the rank of a kingdom. In 1821, the King, to avert threatened revolution, promulgated a new constitution, and soon after returned to Portugal, leaving his son, Prince Pedro, regent of Brazil. This was the first instance of a colony being the seat of Government of its mother country, and it is likely to be

the last. For, suspecting that when the danger was past, Dom João intended to abrogate the constitution which he had given to Brazil, and to recede from the honour which he had done it in bracketing with Portugal and Algarves, as being his "united kingdom," a revolution broke out in April, 1821. Either through fear, policy, or ambition, the Regent Dom Pedro sided with the Brazilians, and was declared "Perpetual Defender" of the country. He furthermore announced its independence, and though the Portuguese made a feeble attempt to regain possession, the Brazilians rapidly carried all before them, and before the end of 1823 the authority of Dom Pedro, who had been proclaimed Emperor, was recognised throughout the whole country, which, at that time, also comprised part of the present Republic of Uruguay. But the troubles of the new empire were not yet at an end. Republican movements began to gain ground. The ex-colonists feared anarchy on the one hand, and anarchy on the other. Finally the Emperor signed the imperial constitution which the Assembly had prepared; the King of Portugal was formally proclaimed Emperor of Brazil, only immediately to abdicate in favour of his son, the actual monarch of the Brazils, who accordingly was crowned, and the country acknowledged as an independent sovereignty. The Government is an hereditary and constitutional monarchy, with a legislative body, consisting of a Senate of 58 members, appointed for life, and a House of Deputies, containing 122 members, elected for four years. The Deputies are chosen by provincial electors, who are themselves chosen by the people. The Senators are chosen also by the provincial electors in triple lists, from which three candidates the Emperor selects one, who holds office for life.

In 1820, Dom Pedro I. became, by the death of his father, King of Portugal, but resigned the Portuguese crown to his daughter, Donna Maria. In 1831, after reverses, during which it lost Uruguay, and the country was on the eve of civil war, he abdicated the throne of Brazil in favour of his son, the present Emperor, Pedro II., then five years of age. The empire was governed by a regency till 1840, when the present Emperor was declared to have attained his majority. The history of his reign is written in the rapid development of the resources of the empire, the erection of public works, the growth of commerce, the abolition of the traffic in slaves, and the provisions made for their gradual emancipation, the encouragement given to immigrants, and the establishment of a complete system of education. Since the transition period of 1821-25, when the country was hovering on the brink of that restless political doctrinarianism and anarchy which has overtaken all the other South American countries, Brazil has enjoyed the blessings of a stable government, internal peace, and on the whole a greater degree of prosperity than we are accustomed to associate with the Latin nationalities of the New World. In 1865, in concert with the Argentine Republic and Uruguay, it declared war against Paraguay, a disastrous conflict which ended, in 1870, in the utter prostration of that unhappy little republic, and the appropriation of a considerable portion of its territory by the Argentines. The immediate cause of the unfortunate war was the seizure, by the Dictator Lopez, of a Brazilian vessel in the Paraguay River, followed by an armed invasion of Brazil and the Argentine Republic. It involved on Brazil immense sacrifices of men, and an expenditure of upwards of £50,000,000 sterling.

PHYSICAL GEOGRAPHY.*

Imperio do Brazil—literally the land of the “live coal”—occupies three-sevenths of the South American continent, and covers an extent of contiguous territory 3,287,964 square miles, greater than that directly under any government except Russia and the United States, though, of course indirectly, England governs an infinitely greater portion of the world if India be taken into account. The boundary lines of the empire touch the borders of all the South American republics except Chili. The greatest breadth of territory is 2,470



PALACE OF THE EMPEROR OF BRAZIL AT PETROPOLIS, NEAR RIO DE JANEIRO.

miles, and the greatest length 2,600 miles, the coast-line being 4,750 miles, while the interior is extremely varied in aspect and formation. Brazil is, in general, a mountainous country, three

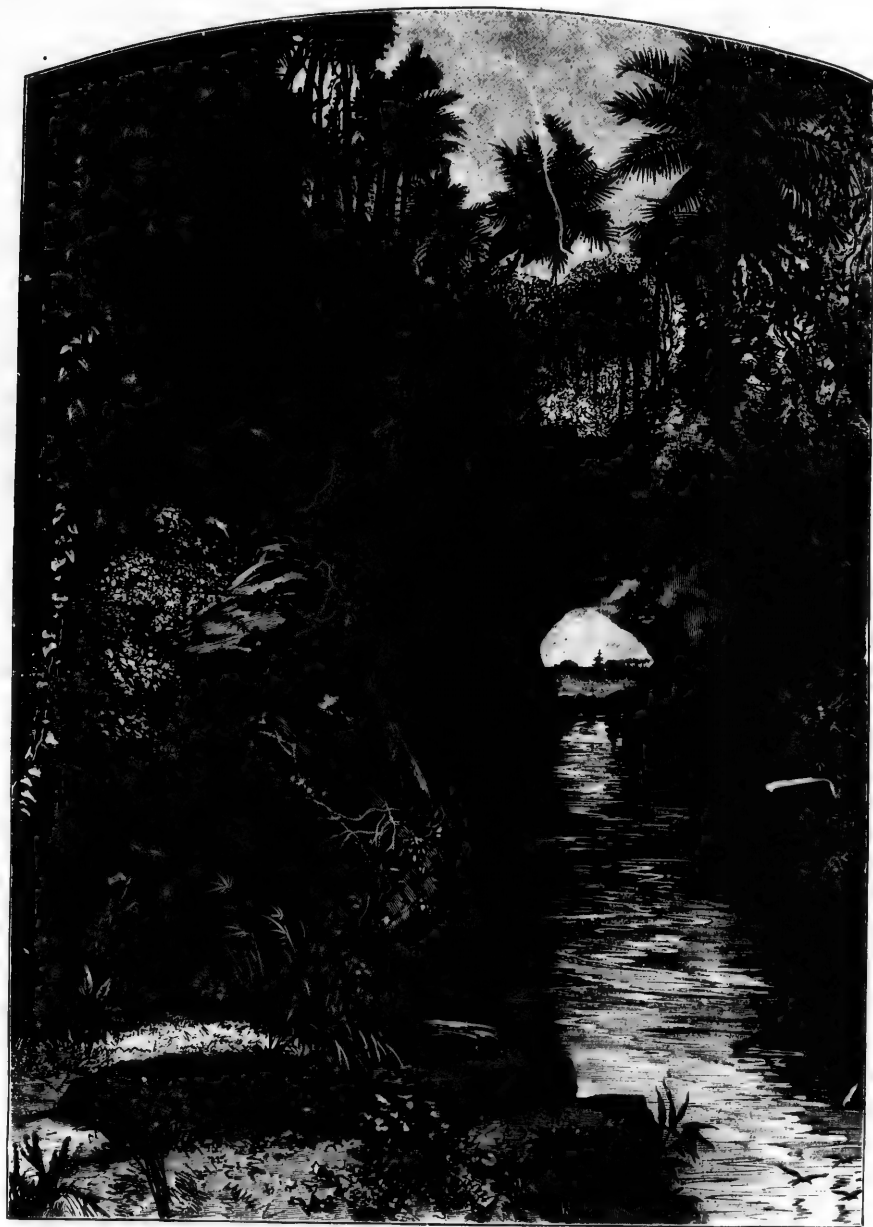
* In drawing up this account I must confess my obligations, in addition to the memoirs and books which will be acknowledged in their proper places, to the authentic information drawn up by the Brazilian Commissioners for the Philadelphia Exhibition, to some excellent articles in the *Philadelphia Ledger and Transcript*, July 14th, 1870; Kidder and Fletcher: “Brazil and the Brazilians” (1857); Bates: “Naturalist on the Amazons” (1863); Wallace: “Amazon and Rio Negro” (1853); Keller: “The Amazons and the Madeira;” Burton: “The Highlands of Brazil” (1869); Agassiz: “Journey in Brazil;” Hartt: “Scientific Results of a Journey in Brazil” (1870); Liáis: “Climat, geologie, faune, et geographie botanique du Brazil” (1877); Orton: “Andes and Amazons” (1870); Pareira: “Situation social, politique, et economique de l’empire du Bresil” (1865); Constatt: “Brazilien, Land und Leute” (1877); Saint-Adolphe: “Diccionario Geografico do Brazil” (1870); Selys-Longchamps: “Notes d’un Voyage au Bresil” (1875); Scully: “Brazil, its Provinces, and Chief Cities, &c.” (1868);

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SCENE ON A TRIBUTARY OF THE RIVER AMAZON, BRAZIL.

great mountain ranges (p. 125), and their spurs occupying over one-third of its surface; but it is also remarkable for its vast plains, extensive valleys, and large rivers. The highest mountain (Pico do Itatiaiosu) has been reported to have an elevation of from 6,250 to 10,300 feet above sea level, and there are several above 5,000 feet in height. There are no known volcanoes in the empire, although parts of the soil are of volcanic formation. The



THE PASHUBA, OR PASHUBA PALM (*Iriartea ventricosa*) OF BRAZIL.

territory is well watered, the four great fluvial basins being those of the Amazon, the Tocantins, the Parana, and the São Francisco. The Amazon and its tributaries drain nearly 2,500,000 square miles, or more than a third part of South America, including about

Wappacus: "Handbuch der Geographie und Statistik von Brasilien" (1871); "Mulhall: "Handbook of Brazil" (1877); Wickham: "Rough Notes of a Journey through the Wilderness" (1877); Brown and Lidstone: "Fifteen Thousand Miles on the River Amazon and its Tributaries" (1872); Bigg-Wither: "Pioneering in South Brazil" (1877); the works of Herndon, Edwards, Markham and others; the great "Flora Braziliensis," and numerous articles in the *Geographical Magazine*, *Proceedings*, and *Journal of the Royal Geographical Society*, Parliamentary Papers, official reports, &c.

one-fourth the area of Brazil, and has a course through the empire of nearly 2,300 miles. It is one of the wonderful rivers of the globe. It empties itself into the ocean with such velocity that navigators, after losing sight of land, may yet drink of its waters, its volume overlying—so it is said—the surface of the ocean for fifty leagues from shore. Beyond the frontier of Brazil the Amazon continues to be navigable by steamers for upwards of 1,188 miles, in the territory of Peru. The river and its tributaries are navigable, by steamers, through an aggregate length of more than 25,000 miles, and by smaller craft for double that distance. The river is altogether 4,000 miles in length, is more than 150 miles wide at its mouths, and far in the interior is so broad that its navigation is often dangerous on account of the tempests which overtake vessels before they can reach the shore. The Tocantins has a course of about 1,500 miles, and the Araguaya, its principal affluent, extends about the same distance. The Parana, in the southern, and the San Francisco, in the central part of Brazil, are also large rivers, with numerous affluents. Steam navigation, subsidised by Government, has been established on many of the rivers, and the Government has been engaged for several years in surveys and engineering works, designed to improve navigation, or to carry passengers and freight around falls and cataracts, that obstruct navigation. Without these works, however, Brazil, with its forty-two harbours and numerous navigable streams, is well fitted for carrying on foreign commerce and developing its interior resources. Most of the rivers are subject to periodical floods, but the flooding of the Amazon does not interfere with navigation, as its affluents do not swell simultaneously. This river—called also the Marañon, Orellana, or Solimoens—is the largest in the world, and though it is doubtful whether it will ever play in the world's history so important a part as the Nile or the Mississippi, or even for long to come as the La Plata, yet it is peculiarly fitted for navigation. The winds for six months in the year usually oppose the current, so that a vessel can either float down the river by taking advantage of the latter, or ascend up by aid of the sails. Steam has, however, minimised the importance of this physical feature of the great river, though to the Indians and the smaller craft which ply along it this circumstance is still held in useful remembrance. While the tide is felt 400 miles from its mouth, the force of the current can be perceived 200 miles out to sea. Near the mouth is experienced the effects of the great bore, or *porroca*, which La Condamine thus graphically describes:—"During three days before the new and full moons, the period of the highest tide, the sea, instead of occupying six hours to reach its floods, swells to its highest limits in one or two minutes. Presently you see a liquid promontory twelve or fifteen feet high, followed by another and another, and sometimes by a fourth. These watery mountains spread across the whole channel, and advance with a prodigious rapidity, rending and crushing everything in their way. Immense trees are sometimes uprooted by it, and sometimes whole tracts of land are swept away." The region through which the river flows is for the most part covered with the densest forests, impenetrable unless by the aid of the axe, to man, but abounding with jaguars, panthers, bears, and an immense variety of other wild animals. The Indian tribes of the empire also find a home here in comparative peace, and though they have still a great many of their pagan rites, the Jesuits—Spanish and Portuguese—have affected them so far as to coat their barbarism

in some cases over with a varnish of Christianity. The river abounds in fish and turtles, while the alligators, which are also numerous, may be often seen floating on the surface like great logs of wood, or lying asleep on the muddy shores or sand-spits, which here and there relieve the terrible monotony of ever umbrageous growth. In the valley of the Amazon, however, are also found great grassy llanos, and also many *seltas*, or marshes, which the river periodically overflows, so that between the Negro and Madeira at the time of the annual rise, the river covers a great part of the adjacent country, and has really no determinate limits. The name Amazon—or as it is sometimes written Amazonas or Amazonas—has nothing to do with the fabled ladies of Asia Minor, nor with their coal-black sisters of the kingdom of Dahomey. The word is derived from the Indian word Amassona, or “boat destroyer,” a term which the tribes near the mouth not unnaturally applied to the devastating bore already spoken of. Strictly speaking, this name ought only to be applied to the river below the place where the Rio Negro joins it; above that point, on to where the Marañon and the Ucayale unite with it being by native usage called the Solimoens. The other two names are derived by Francis Orellana, one of its earliest explorers, and Marañon who first visited the upper waters in the year 1513. Yañez Pinçon (p. 126) was, however, its real discoverer, but the mariner had dreams of great things awaiting him in other lands, and so, like many who have come after him, sailed away from the mouth of the great river to explore those Indies with which his name is now so little connected. Physically, as well as politically and socially, Brazil is in many respects widely different from the other parts of South America. It is in the first place the largest political division of that part of the continent. It is the only monarchy in America—if we except the European colonies—and the sole region in which the Portuguese language is spoken. It is physically remarkable in so far that it is exempt from the volcanoes and earthquakes which are so familiar to the regions lying north of it, and equally it is free from those long and widespread droughts which make at times so much of America little better than a desert. Moist winds always blow upon the Atlantic, hence most of the country yields rich harvests to the agriculturist, though some parts of the vast empire are arid, and unfavourable to vegetation. Its rivers, moreover, though greater than those of the rest of the continent, are yet in some cases not suited for the purposes of commerce. With the exception of the Amazon, most of the Brazilian rivers are impeded by shallows and cataracts, and, moreover, the best of these do not flow into the ocean direct, but as tributaries of other rivers. The humid atmosphere causes a luxuriant vegetation, and these two combined make the ordinary roads all but impassable, so that with all its teeming riches, the vast empire is not so well supplied with means of reaching the interior as some of the other parts of the continent less well watered, and poorer in resources.

THE PLANT AND ANIMAL LIFE OF BRAZIL.

Is remarkably luxuriant—perhaps the most luxuriant in the world. More than 17,000 species have already been described, and doubtless many more remain to be discovered. In the valley of the Amazon, the area of a circle 1,100 miles in diameter is covered with one dense mass of arboreal vegetation. Prof. Agassiz reports having seen 117 different kinds of valuable woods cut from a piece of land not half a mile square. The chief ornament

of the forests is the palm, represented by from 300 to 400 species, which supply the Indians with all that they need in this life, including food, drink, raiment, shelter, weapons, tools, medicines, &c. The Morichi Mirita, or Ita palm (*Mauritia flexuosa*, p. 105), affects swampy grounds: the Guarani Indians almost live upon its sago, while its fibre wood and sap supply them with house, bed, and board. Among the others may be mentioned the Pashiuba palm (*Iriartea ventricosa*, p. 129)—the peculiarity of which is that its roots shoot and spread out just above the ground, and then grow obliquely downwards—and the Carnaüba palm (*Copernicia cerifera*). Of the latter every part serves some use, while from the leaves is extracted a wax which is exported to the amount of £150,000 annually.

The very numerous varieties of valuable and useful woods found in Brazil were well represented at the Philadelphia and Paris Exhibitions. The chief agricultural products are coffee, sugar, rice, cocoa, cotton, tobacco, and herva-mate, and corn, wheat, and oats yield enormous returns to the husbandman, but have not yet become articles of export. Fruits are most abundant, and include those of nearly all climates. Bananas, yams, figs, lemons, oranges, and grapes grow in nearly all the provinces. Brazilian nutmegs, tonka beans, and Maranhão cloves are common on the Rio Negro, in the basin of which are numberless trees valuable for the oils and resins they yield. There are several species of vanilla, and the palm-yielding piassaba, used extensively in textile fabrics, and the bombax, producing silk cotton, also grow there. Among the other endless vegetable products used as food, for medicine, or for economic purposes, we can only mention the cow tree (*Brosimum Galactodendron*), a species of the order of artocarpaceæ. In Venezuela it, however, attains perfection. It is there known as the Palo de Vaca, or Arbol de Leche, and in the vicinity of Caracas attains the height of 100 feet, and grows in large forests. It derives its name from the milky juice which is obtained by making incisions in the bark. The milk closely resembles that derived from the cow, and, indeed, is used as a substitute for it. Unlike many vegetable "milks," it is perfectly wholesome, and even nourishing, and, in addition, possesses a pleasing balsamic odour. After a few days' exposure to the air it turns sour, and putrefies. The same name is also sometimes applied to the Hya Hya (*Tabernaemontana utilis*), also of South America. The vegetation covering different parts of Brazil is known by various names. For instance, the *mattos* are the heavy forests which clothe the moist low-lands of the north, and which also occur in belts over the central and southern portions of the country. The *catungas* are the open woods of the highlands, which lose their leaves during the dry season, and gradually merge into *campos geraes*, or open plains, or prairies, and rounded hills covered with grass, and scattered with bushes. The term *sertão* is now applied to the dry hills, stony parts of the campos unsuited for agriculture, while to the agricultural belt of the Eastern provinces the term *Beira mar* is familiarly applied. "Trees split for paling in the neighbourhood of Rio Janeiro," writes Mr. Keith Johnston in his excellent description of Brazil, "send forth shoots and branches immediately, and this whether the position of the fragments be that in which they originally grew or inverted. On the banks of the Amazon the loftiest trees destroy each other by their proximity, and are bound together by rich and multiform lianes ['bush ropes']. In the province of Maranhão, the roots, grasses, and other plants extending from the shores of pools, weave themselves in time into a kind of vegetable bridge, along which the passenger treads, unaware that he has left the firm earth, until the jaws of a cayman protrude through

the herbage before him. The vegetable productions of Brazil have a strong analogy with those of Guiana. The most common are the *Compositæ*, *Leguminosæ*, *Euphorbiacæ*, *Rubiaceæ*, *Aroidæ*, and ferns of the most varied forms. The vegetation of the valleys differs from that of the *campos*, as it again does from that which occurs in the *sertões*. Along the coast the mangroves are the most numerous and prominent species. The most marked peculiarity of this class of plants is, that the seeds begin to shoot before they drop from



COMBAT BETWEEN A JAGUAR AND AN ANT-EATER: A SCENE IN A BRAZILIAN FOREST.

the parent plant, and that the drooping branches strike root into the soil. They are never found inland, except where the surface is scarcely elevated above the level of the sea. They flourish from the Rio Grande do Sul to Maranhão, converting the land into a morass wherever they are allowed to flourish unmolested. Immediately behind them numerous families of palms raise their graceful heads. The underwood in the neighbourhood of Rio Janeiro consists principally of crotons. Every large river of Brazil has its own appropriate form of vegetable life, giving a peculiar character to its banks. The vegetation of the Amazon may be divided into three classes:—(1) That which we find on the islands; (2) the vegetation upon the banks overflowed at regular intervals by the

stream, and (3) that which stands high and dry. The difference between them consists in the character of the bark and the stems of the plants. Brushwood and herbage are nowhere to be seen; everything tends to the gigantic in size. The most varied forms group awkwardly together, crossed and intertwined with leaves. The preponderance of trees with feathery foliage, and with glossy, fleshy leaves, lends alternately a tender and luxuriant character to the scene, which is in every other respect painful from its monotony. Representatives of the most estranged natural families grow side by side. It is only on the islands, where the willow and some other plants are found, that we are reminded of the uniformity of our northern vegetation. Cocoa trees and the vanilla, *Capiscum frutescens*, and different kinds of pepper, the cinnamon and sanauma (p. 137) trees, and the Brazilian cassia, abound. The flora of all the tributaries of the Amazon is similar to what we have described, until the traveller ascends above the falls, and finds himself in another region. The source of the Madeira alone offers a partial exception, retaining a vegetation indicative of extensive plains, lakes, and morasses. The vegetation of the southern campos is widely different. On the plains of the southern provinces, we find scattered about strong tufts of greyish-green and hairy grasses, springing from the red clay. Mingled with these are numerous herbaceous flowers of the most varied colours and elegant forms. At intervals, small groves of trees seldom exceeding twenty feet in height, so distant that the individual form of each is easily recognised, with spreading fantastic branches, and pale green leaves, break the monotony of the scene. Solitary myrtles, and numerous varieties of pleasing fruits, and now and then a cactus, add to the variety. A similar vegetation, but with a richer variety of plants, occurs in the diamond district. On the western declivity of the Serra do Mar, and along the upper banks of the Rio São Francisco, extends a wooded 'cattinga' country, of a character entirely different from that which is found in the valleys below, *Malva*, *Euphorbiaceæ*, *Mimosæ*, and the like are the prevailing types on the Rio Francisco. Cactuses, palms, and ferns abound on the Serra do Mar. In this district the ipecacuanha flourishes best. It is, however, in the glowing steppes of Pernambuco that we find the cactus predominant. In the valley of the Paraguay the most striking feature is presented by the water plants, which, in one river, are sufficiently strong to impede the navigation of a stream both deep and broad."

The zoology of Brazil is scarcely less remarkable than its botany. Among the animals not indigenous to the country are the horse, ass, sheep, hog, and dog. Herds of horned cattle roam more than half wild over the vast plains of the interior, and game abounds in the wooded regions. Among the wild animals of Brazil are cougars, ocelots, wolves, deer, sloths, agoutis (p. 77), armadillos, several species of opossum, vampires, jaguars, ant-eaters (p. 133), the *anta*, or tapir, the largest South American mammal, the *capibara*, or water hog, the largest known rodent, otters, and nearly sixty species of monkeys. Of birds, there are the king vultures, eagles, hawks, kites, owls, turkeys, geese, ducks, toucans, a great variety of parrots and of humming-birds, the American ostrich, and an infinite number of small birds of brilliant plumage. These, with the Brazilian butterflies, beetles of brilliant colours, thousands of less gaudy but not less pestilent insects, are familiar in a score of museums, and much too familiar to the non-entomological traveller. Poisonous serpents, alligators, and turtles abound in the valley and waters of the Amazon, and the rivers and lakes are stocked with an endless

variety of fish, many of which are as yet undescribed. One of the largest fish is the *Pira ruca*, which forms the principal food of the people of Para and Amazonas.

COMMERCE AND RESOURCES.

The mineral resources of the empire include nearly all the useful metals, coals, and many kinds of precious stones and building stones. Of these probably the hematite iron ores are the most valuable. Iron is found in large quantities in deposits which may be easily and economically worked, for we are told that they are near extensive forests, "which," to quote the official document referred to, "being cut down constantly, reappear within from six to ten years." The resources of the most important iron foundry of the empire are remarkable. "Ore of excellent quality; carbonate of lime for fluxes; refractory clay for building furnaces; sufficient water power for the more important engines, and very good forests," are all found in close proximity to each other. Quarries of excellent marble are found in the vicinity, and comparatively recently a coal mine was discovered within about twenty miles of the works.

Bituminous coal is found, and there are also beds of lignites, bituminous schists and peat, of which there are large deposits in Brazil. Most of the coal is rather poor, but at Arroyo dos Ratos, in the province of Rio Grande do Sul, it is worked on a small scale for the use of the steamboats which ply on the Lagoa dos Patos, or on the rivers. An English company also works the mines of Candiota in the same province. Gold is found in paying quantities, and is exported; platina, irridium, palladium, tellurium, bismuth, and arsenical pyrites, silver, copper, mercury, manganese, and lead are also exhibited. Many of these are found in paying quantities. Tin and zinc have been found in small deposits. There are a large number of precious stones, including diamonds, emeralds, sapphires, rubies, topaz, beryls, black, blue, and green tourmalines, crystals of remarkable purity, fine amethysts, chalcedonies, opals, agates, and jaspers. Among the other mineral deposits are mica, asbestos, graphite, sulphur, saltpetre, rock salt, alum, building stones, including several kinds of sand stones, granites, and marbles.

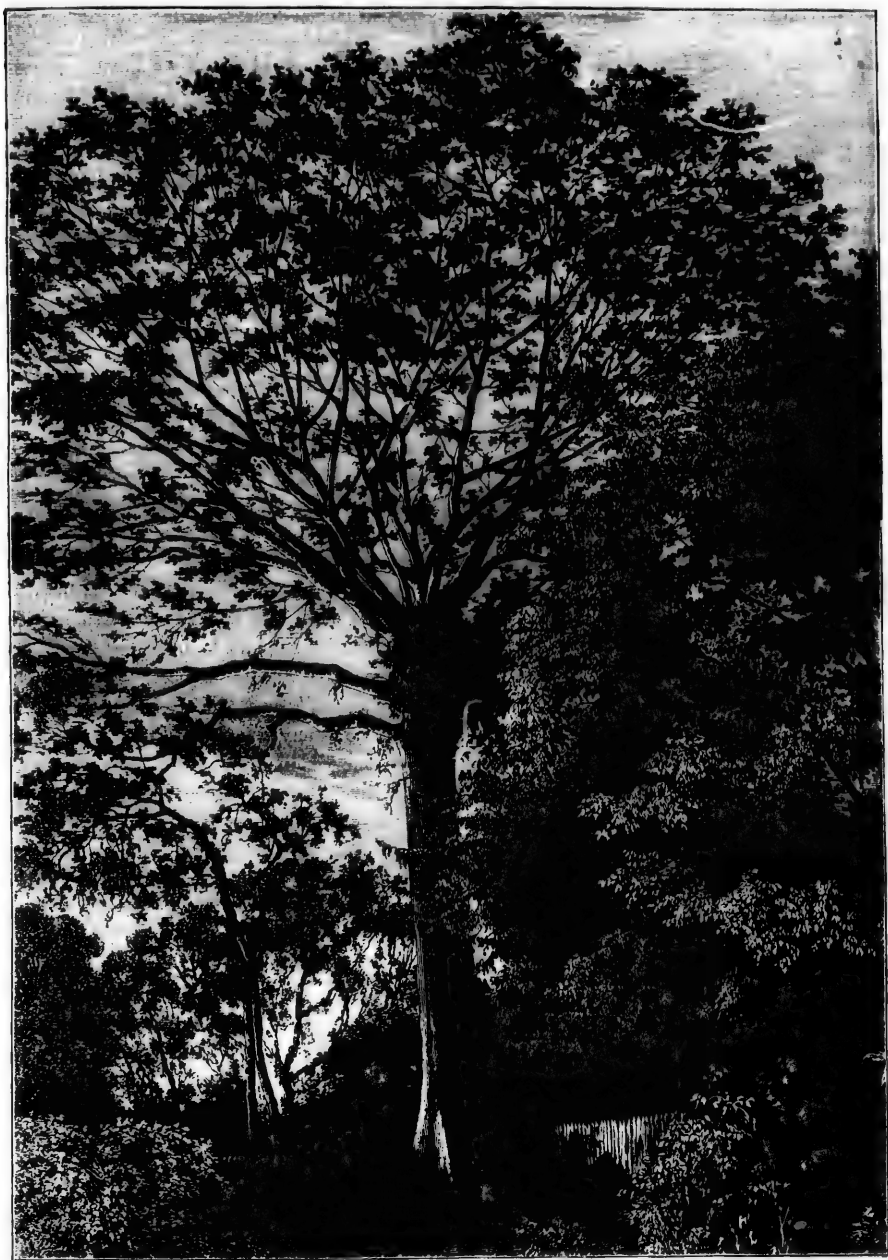
The commerce of Brazil has grown and is growing with the development of its resources. The ports of Brazil, chiefly by the influence of Great Britain, were opened to all friendly nations in 1808, and the Government, to encourage commerce, has thrown open the coasting trade to foreign flags. The average annual value of the imports and exports, including bullion and specie, from 1839 to 1844, was £10,578,580, the total value of the imports in the years from 1872 to 1876 averaged £17,000,000, and that of the exports in the same period £17,500,000.

The commercial transactions of Brazil with other nations from 1864 to 1874 show a balance in favour of Brazil of £33,843,470, though during that period of ten years the empire maintained a five years' war with Paraguay. The inter-provincial coasting trade followed the foreign maritime trade in its progress, the average importations from 1864 to 1869 being valued at £570,812, and the average importations from 1869 to 1874 at £10,284,350. These official data embrace only a small portion of the inland trade, as all merchandise, before being exported and after being imported, passes through many hands. Of the principal nations engaged in the foreign maritime trade of Brazil Great Britain carries 51

per cent. of the imports and 45 per cent. of the exports; France, 19 per cent. of the imports and 13 per cent. of the exports; the United States, 4½ per cent. of the imports and nearly 21 per cent. of the exports; Portugal, 5 per cent. of the imports and 4½ per cent. of the exports; Germany, Austria, and Hanseatic cities, 5 per cent. of the imports and nearly 3½ per cent. of the exports; the River Plate, 9 per cent. of the imports and 4½ per cent. of the exports. In 1876 Brazil exported to Great Britain £5,178,386 worth of goods, and in return imported £5,919,758 worth of British manufactures and other produce. Both these figures show a falling off from the six or seven years. Raw cotton, coffee, and unrefined sugar form the chief Brazilian staple which we import, the quantity of the former (cotton) being in 1876, 476,512 cwt., valued at £1,497,225. The sugar imported in the same year was 1,279,462 cwt., worth £1,220,362. In return Brazil takes from us manufactured cottons, wrought and unwrought iron, linens, woollens, &c. The custom duties, in accordance with the suicidal policy of South America—political economy being an unhealthy plant in the New World—ranges from 40 to 50 per cent. "The practice of sucking the marrow out of the agricultural organisation, by the imposition of enormous export duties, has rendered the accumulation of capital an impossibility.* At the commencement of 1877, according to Martin, there were 1,438 miles of railway open to traffic, and 800 more in course of construction. In the same year the number of miles of telegraph constructed may be given at 3,890.

Brazil possesses every climate found within the tropical and temperate zones, the low lying regions being very unhealthy, and utterly unfitted for Europeans, while the higher lying regions are very salubrious. Yet so great is the empire that it is estimated that not over one acre in 200 is under cultivation, and in some of the provinces, especially those near the sea, the amount of grain raised is not sufficient to feed the population. The forest supplies the greatest vegetable riches of the country. Page after page could be filled with the mere names of the economic plants of this immense country, and yet the list would not be exhausted. Cocoa grows wild, and is exported to a considerable extent. The Ibiripitanga, or Brazil wood (*Cesalpinia Brasiliensis*), which takes a beautiful polish, and yields a fine dye, is a Government monopoly, and hence known as the *pao de rainho*—the Queen's wood—has been so recklessly cut in the regions near the coast, that it is not now so abundant as it once was. The trumpet-tree (*Cecropia peltata*), the tapea, or garlic pear-tree, the laurel, the soap-tree, the various palms, the banana, custard apple, guava, the various kinds of nuts, including the Brazil nut (*Bertholletia excelsa*), and the well-known indiarubber tree, may be included among the better-known products of the Brazilian forests. The Brazilian indiarubber is derived from a number of species of *Siphonia* (principally *S. elastica*, *Brasiliensis*, *lutea* and *brevifolia*) and probably other trees. *Siphonia elastica* is the guava tree, *S. Brasiliensis* the one common in the forests of Para, though on the Upper Amazon the two latter seem to prevail. They are called by the Brazilians *seringa* trees—the locality where they grow, a *seringal*—from the Portuguese word *seringa*, signifying a syringe, the caoutchouc having been originally used in making these instruments. The trees vary from 25 to 70, or even 100 feet in height, and all yield a milky juice, though

* Consular Report, 1874, cited in Martin's "Statesman's Year-Book" (1878).



THE SANAUMA TREE OF THE AMAZONIAN FORESTS, BRAZIL.

the "gum" which is yielded by this juice is not equally good in all of them. In some it is too brittle for economic purposes. The raw seeds are poisonous to man and the lower animals, though the macaws eat them greedily, and they are accounted excellent bait for fish. Long boiling, however, deprives them of their poisonous principles, and renders them palatable. Though M. de la Condamine made us acquainted with "indiarubber" as early as 1730, it is only within the last forty or fifty years that it has become an important element in our arts and manufactures. The white juice is collected by making an incision in the bark of the trunks, and collecting it in little earthenware vessels. The milk is then poured upon moulds, and immediately held over the dense smoke made by burning the nuts of the urucuri palms (*Attalea excelsa* and *Cocos coronata*) until it is sufficiently hard to bear another coating, when the process is repeated until the requisite thickness is obtained. The moulds are then removed. This accounts for the blackness of the indiarubber as we see it in commerce; the coagulation is, however, solely produced by the heat of the smoke, and Mr. Cross is of opinion that equally good indiarubber could be produced by putting the milk in shallow vessels, and evaporating the watery particles by the heat of boiling water. Formerly these moulds were—according to Mr. A. Smith—always in the form of shoes or bottles, and hence one of the kinds of caoutchouc is known commercially as bottle-rubber; but they are now frequently shaped something like battledores for folding linen, only thinner. In 1873-74, 14,819,890 lbs. of this "gum," valued at £1,069,477, were exported. In 1875-76, the amount was a trifle less, but as the cultivation of the tree has regularly commenced, we may, in time, expect the amount to be largely increased, and the business put on a less precarious, and altogether a more satisfactory, footing than the present haphazard method of collecting the "gum," and the consequent reckless destruction of large numbers of half-grown trees, without any effort being made to replace them. Mr. Cross, who introduced the caoutchouc-yielding *Castilloa* tree from the Isthmus of Panama into India, was, in 1870, employed to collect the *Siphonia* plants of Brazil, with a view to their cultivation in India. He gives an interesting account not only of the plant, but also of the social surroundings of the people in the indiarubber region, which, in connection with the subject of Brazilian products, may be usefully annotated here and there. Para, which is "jumping-off" place to the Seringals, is a city on the southern bank of the Amazon, eighty miles from the ocean, of about 40,000 inhabitants. Everything is dear, and notwithstanding the reputed fertility of the Amazon valley, nearly all the necessaries of life are imported. The butter and fish come from Norway, rice and flour from the United States, while sugar, coffee, and *mandioca* are brought from the southern ports of Brazil. The import duties—in some cases amounting to 25 per cent.—make everything expensive. The houses are for the most part built of mud, roofed with tiles. "The windows are chiefly formed of wood, hinged at the top, and push out from below, whence the inmates unseen obtain views of the street and passers by. Throughout the course of the day many of the occupants are invariably congregated behind these window lids. The great bulk of the citizens go out more ostentatiously dressed than the people of London, the attire considered essential being a fine black coat and hat, with snow-white ironed vest and trousers, and fancy French boots. Those who do not conform to the style of dress are stared at. Even at the beginning, I did not agree with the fashion, and afterwards was further removed from it, by being

almost daily bedaubed over with the mud of the *gaps* [or deep gully-like natural ditches, which often penetrate for many miles into the interior of the vast forest region surrounding the city, and are daily filled by the tide]. Coloured females and slaves may be seen stepping into carriages perfectly loaded with large necklaces and glittering ornaments, and even the families of foreign residents are often dressed in the most excessive and extraordinary manner. Merchandise and other effects are removed from one place to another in the old primitive way, thus employing many hands who earn high wages. Emigrant Portuguese, of whom there are about 5,000, are mostly the carriers, boatmen, and shopkeepers of the place. The supply of water for the city is carted through the streets in barrels, and sold at the rate of three halfpence per *poto*. The *poto* contains twenty-one English imperial pints. Within twelve hours after being deposited, the water is found to precipitate a greenish substance, amounting to nearly one-fourth the quantity, which is not removed even if filtered through several folds of stout cloth. In the courtyard of the majority of the houses is an open cesspool, which, in such a glowing atmosphere, may assist in developing much sickness. Dysentery, yellow fever, and various other forms of a typhoid character, appear to be permanent, though of late there has been no serious outbreak, and the place is reported more healthy than formerly. Tetanus and other forms of nervous affections are of frequent occurrence, especially among the native-born population." The province of Para, and the islands scattered over the lower portion of the Amazon, are the chief indiarubber collecting localities. The trees, when often tapped, present, up to a height of ten or twelve feet, "one swollen mass of warty protuberances and knots, covered with thick scales and flakes of hard dry bark." The collector makes use of a small axe-like instrument an inch broad, which, at each stroke, cuts through the bark, and into the wood for fully an inch. A layer of wood forms over the injured part at the expense of the bark and general vitality of the tree. "The newly-formed wood is again cut into and splintered, and so the process is repeated on each successive layer, until the trunk becomes merely a mass of twisted, wrinkled wood, with very thin bark. In this condition hardly any milk flows from the cuts, and although for years a few green leaves may continue to sprout from the points of the twigs, yet the tree may be considered as dead, and, in fact, finally withers away. It is therefore the injury done to the wood, and not the overtapping, which lessens the flow of the milk, and ultimately causes the death of the tree. The cuts in the wood are, of course, unnecessary, since the milk is only met with in the bark." *

Coffee is another Brazilian staple. At the Philadelphia Exhibition there was an immense display of this in a pavilion made of raw cotton, and in the Paris Exposition there was even a finer show of the different qualities cultivated throughout the empire. The coffee tree seems to have been introduced into Brazil about the middle of the eighteenth century, the seeds having been carried from French Guiana to the Amazon, where the cultivation was only undertaken after the promulgation of the decree of May, 1761, exempting the new product from custom house duties. It was not, however, until 1810 that it got into favour outside the bounds of the country in which it was grown.

* Cross: *Geographical Magazine*, 1877, pp. 133 and 183, where will be found the best account I am acquainted with of the method of gathering and preparing the indiarubber milk. See also Markham: *Geographical Magazine*, 1876, p. 31, for an exhaustive account of the arrangements for introducing the trees into India.

This was owing to the superior modes of cultivation introduced by Dr. Lecesne, a planter expelled from San Domingo, who had settled near Rio. At present Rio de Janeiro, São Paulo, Minas Geraes, and other Brazilian provinces contain immense forests of coffee trees, and for the preparation of the product the latest improved machinery is used. Coffee grown on the high lands of Brazil is preferred for its aroma to that grown in the bottom lands. Both the washed and sun-dried coffee of Brazil find ready sale in the commercial cities of Europe. France, England, and Italy prefer the aromatic washed coffee; Russia,



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Denmark, and Germany the bitter sun-dried coffee. Brazilian merchants claim that their coffee is not inferior to that of any country in the world, and it is well known that Brazilian coffee is sold in all markets as coming from other places. Professor Agassiz, while in Brazil, wrote: "More than one-half the coffee consumed in the world is of Brazilian growth. And yet the coffee of Brazil has little reputation, and is even greatly underrated." Coffee represents more than one-half the total values of the exports of Brazil. In 1873 to 1874 the exports of coffee were 370,448,064 lbs., valued at £12,107,878, and of this export something more than one-half was sent to the United States. (p. 141.)

The cotton plant has been cultivated in Brazil for centuries, principally in the northern provinces. It grows best in the table-lands of these provinces, particularly in those of Maranhão and Pernambuco. For a considerable time, however, the culture was on a limited

scale, chiefly for want of a market. The rebellion in this country, however, caused a demand for Brazilian cotton, which encouraged the planters, and led to the opening of railroads for the transportation of the product to seaports, and since then the cultivation of cotton has become an important industry even in the southern provinces. The exports of cotton in 1873-74 amounted to 119,843,077 lbs., valued at £2,599,465, but at present it is rather over £3,000,000. Sugar has been already referred to. The soil is peculiarly fitted for it, and in 1873-74, 310,593,327 lbs. were exported, of which



COFFEE GATHERING IN BRAZIL.

England and the United States took the greater part. This, which was chiefly produced in the districts adjoining Bahia, was valued at £3,120,000. Tobacco grows wild in great abundance, and in the provinces of Bahia Minas, São Paulo, Para, and in some localities of Rio de Janeiro it is cultivated extensively, and exported to the value of between £700,000 and £800,000 annually. It is said by the Brazilians to compete with that of Havana, but in this belief they are peculiar. If it does compete, the result is not in favour of the comparative leaf of Brazil, but of the superlative product of Cuba, which still holds its first place in smokers' esteem.

The *herba* (yerba) *mate*, or Paraguay tea, is one of the Brazilian products. We shall have occasion to further refer to it when we come to Paraguay, of which it is the staple, so that it may be briefly dismissed here. It is principally indigenous to the southern provinces of Rio Grande, Santa Catharina, and Parana. Several attempts have been made

to cultivate it, but as yet the greater part of the "tea" is made from the leaves of the wild plants gathered in the woods. About £300,000 to £400,000 worth is annually exported, but almost solely to the River Plate. This product, which appears in commerce in the form of broken leaves and in powder, is the leaf of the mate tree (*Ilex curatibensis*), a species of holly, and is used as a beverage. It is said to possess two great advantages over tea and coffee, in being less exciting and cheaper. It is used as a daily drink in the southern provinces of Brazil, and constitutes one of the most important articles of commerce of that region. A packet of mate, containing a little more than two pounds, costs 10d. The exports of herva mate amount to about 30,000,000 lbs. annually, worth over £250,000, and the home consumption (exclusive of the large quantities used by the native population) amounts to about 40,000,000 lbs. annually. On this basis it is estimated that where a supply of herva mate for a daily beverage would cost 16s. per annum, an equivalent supply of coffee would cost £3 8s., and an equal quantity of tea from £16 to £20. Dr. Schnepf, after travelling through Brazil, said of herva, "Alone and independent of any other nourishment, the infusion of mate will sustain strength and vigour during whole days."

Raw hides form another Brazilian export. Stock-breeding may be carried on in all parts of the empire, but the industry has only been developed to any extent in a few of the provinces. It is estimated that there are at present in the empire 20,000,000 head of horned cattle. Large quantities of hides are used in Brazil in manufactures, and the exports in 1873 to 1874 amounted to 47,602,143 lbs., valued at £1,271,489. The forest products have been already referred to, so that, inviting as the subject is, the commerce in timber and ornamental woods must be briefly dismissed. How extensive this is, or may be, can be inferred from the fact that in the Philadelphia Exhibition—and equally in the Paris one—as well as in the museum at Rio, over one thousand specimens in blocks, boards, and logs, cut and planed, and either wholly or partially varnished, to show the grain of the wood, and their quality as decorative woods, capable of being polished, were exhibited. There are varieties of jacaranda, or rosewood, which are very fine in colour and texture, and susceptible of a high polish. There is also stonewood, or pottery tree (*Moquiller utilis*), in the Amazon valley, from the ashes of which earthenware can be made, copaiba, valuable for the oil which it yields, as well as for its timber; Brazil-wood,* which is celebrated for the colouring matter it contains, and bow wood and macaranduba, which are used in cabinet making. From the last is obtained a white liquid used as milk in tea or coffee, like the Palo de Vaca, or dried and used as a substitute for indiarubber. The bark, which is rich in tannin, is used for dyeing. Logs 100 feet long squared from these trees are not uncommon. Besides these, there are from 300 to 400 species of the palm, many varieties of mahogany, cedar, iron-wood, &c. The palms, besides furnishing good building timber, bear valuable fruits, such as the cocoa-nut, yield wax, oil, starch, materials for cloth and cordage, and the sap, roots, and flowers have medicinal properties. Nearly all the woods are of good texture and

* Indeed, some will have it that this wood gave the name to Brazil, rather than Brazil to the wood. This wood, originally obtained from a species of *Peltophorum*, not a native of America, was called Brazil wood on account of its resemblance to *brasas*, or coals of fire. Hence the land where the new variety came from eventually comes to be called the "land of the Brazil-wood."

suitable for building purposes, and some furnish valuable fibres for ropes, cordage, and caulking purposes. Many resins, oils, dyes, &c., are also obtained from native trees. There is a great variety of vegetable fibres found throughout the empire. Some of these are got from different kinds of branches or "vines," others from the inner bark of palm-trees, and in appearance and strength resemble silk. Finally, among the other endless Brazilian products, we may simply enumerate raw silk, wool, rum, brandy, and wines, dyes, tree fruits, resins, and oils, in great profusion; in addition to wheat, oats, and various European vegetables, which can be easily cultivated in the higher lands, though hitherto they have not become articles of export. To give some idea of the extent to which the minor products of Brazil have become articles of commerce, we may mention that at the date of the latest statistics rum was exported to the value of £53,958; horsehair, £54,046; Brazil nuts, £58,594; and building timber, £97,660. Unlike most South American countries, manufactures have taken root in Brazil. Hats, silk weaving, woollen manufactures, turning, saddlery, soap, candles, pottery, furniture making—from the most common to the finest cane work and inlaid cabinets—artificial flower and jewellery making, and ornamental iron work, are among the industries now claimed for the country, while in the International Exhibitions of late years Brazilian pictures have made their appearance, though for the most part the pictorial art, judging from the subjects, seems devoted to the decoration of churches and other sacred edifices.

CHAPTER X.

BRAZIL: ITS PROVINCES AND PEOPLE.

BRAZIL may be termed an elevated country, for though, except on its western border, there are no great heights, no other tropical region has an average elevation of more than 700 feet above the level of the sea. Hence the country is cooler and more healthy than the corresponding regions of Africa and Southern Asia. With proper care, even in the lowlands, the new arrival need run no risk of having to undergo the "wasting acclimatizing fevers" which in many hot countries he must make up his mind to endure. The highest average temperature of Rio is rarely more than 90°, even in December—which corresponds to June in the Northern Hemisphere—while in July, the coldest month, the maximum is 79°, and the minimum 66°. But these means do not really give those who have had no experience of the tropics a proper idea of the nature of intertropical temperature. What—as Mr. Hinchliff very aptly remarks—the European feels most in a tropical climate is the steady continuance of the heat, day and night, for weeks and months together. Places near the coast, however, get the benefit of the evening sea breeze. The air over the land gets so heated by the vertical sun that it soon rises, when the cooler air from the sea, rushing in to supply its place, "makes a breeze that brings fresh life and animation to exhausted nature." At an elevation of 2,000 to 3,000 feet the climate is usually delightful. The deluges of rain which often fall greatly interfere with out-of-door life all over

Brazil, pleasant though it may seem to those whose previous experience of the sun lands have been in such unsavoury stews as the low lands of Mexico, or the feverish Spanish Main, immediately to the south. The following table (collated with, and corrected by, various data) shows at once the population, free and bond, of the twenty-one provinces into which the empire is divided, with the estimated area, according to the census of 1872:—

Provinces.	Square Miles.	Population.		
		Free People.	Slaves.	Total.
Amazonas	753,439	56,631	979	57,610
Para	412,467	232,622	27,199	259,821
Maranhão	141,651	284,101	74,939	359,040
Piauhv	81,779	178,427	23,785	202,222
Ceará	50,262	689,773	31,913	721,686
Rio Grande do Norte	20,129	220,959	13,020	233,980
Parahyba	20,346	341,643	20,914	362,557
Pernambuco . . .	46,257	752,511	89,028	841,539
Alagoas	11,642	312,268	35,741	348,009
Sergipe	12,038	139,812	22,623	176,243
Bahia	204,803	1,120,846	162,295	1,283,141
Espirito Santo . .	17,029	59,478	21,946	82,137
Rio de Janeiro } .	18,480	490,087	70,726	782,724
Município Neutro }		226,033	48,939	274,972
São Paulo	99,541	680,742	156,612	837,354
Paraná	108,557	116,162	10,560	126,722
Santa Catherina . .	18,924	144,818	14,984	159,802
Rio Grande do Sul .	110,211	364,022	67,791	434,813
Minas Geraes . . .	237,481	1,642,449	366,574	2,009,023
Goyaz	263,372	149,743	10,652	160,395
Matto Grosso . . .	668,655	53,758	6,667	60,417
Total	3,288,071	8,190,383	1,476,988	9,667,371

In addition to this census—which was made partly from actual enumeration and partly from estimate—about 177,813 people “belonging to districts not enumerated,” may be added to the total. A later return of the slaves was made in 1875, which shows their number at 1,419,966, but Mr. Consul Morgan, in September, 1876, recorded their number to be not more than 1,409,448, which is nearly 1,100,000 less than they were in 1850. Slavery is, however, in Brazil of exceedingly small extent, and will soon become altogether extinct. All children born after 28th September, 1871, are considered free, though they are bound to serve their mother’s owner for a term of twenty-one years under the name of apprentices. But, though they are put under very strict regulations, the “matriculated” apprentices can bring a suit in a criminal court against their masters, should they be excessively punished. This court has also the power of freeing them should it consider further service under such a taskmaster undesirable. The Government slaves, to the number of 1,600, were also emancipated, after remaining for four years under the eye of the State. They are, however, wisely compelled to hire themselves out, or otherwise labour, we suppose, though the terms of the statute does not say so (*Elles são obrigados à contractar seus serviços*), under penalty of being compelled to work in the public establishments. Whether this change—brought about, not so much by any alteration in the sentiments of Brazilian society, but in deference to European and North American opinion—will work well, is doubtful. Much of Brazil cannot be cultivated by white labour, the experiment of introducing European emigrants having

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VIEW OF BOTAFOGO BAY, RIO DE JANEIRO.

in the great number of cases proved great failures to the country, and misery, if not death, to the deluded would-be settlers.

The population of Brazil is rather a mixed one. The basis is Portuguese, but as in early times few of the colonists brought with them wives of their own race, the result of this social system was, by-and-by, a vast brood of Indo-Portuguese half-breds, who in many cases adopted the manner of their fathers, while claiming their name and country. The Africans, who formerly were brought wholesale to the country from their native land, added another and even less favourable element to the population of the empire, and finally a large influx of Germans, Swiss, Italians, and Frenchmen has of late years done much to raise the tone of the people, especially in the seaports, where the chief part of the inhabitants are of European descent. The official census put the Caucasians at 3,787,289, the Africans at 1,954,452, and the native Indians at 3,801,782, though, it is needless to say, a great proportion of each of these three races is mixed with the blood of the other two. Again, about 8,176,191 are Brazilians, and of the 243,481 strangers, 121,248 are Portuguese, 45,829 Germans, 44,580 Africans, and 6,108 French and other nationalities. Of the slaves, 1,372,246 were born in Brazil, and 138,560 in other countries. There is an entire absence of class distinction on account of colour.

Fair provision has been made for the education of the people, and in this, as in the organisation of the judiciary, penal establishments, asylums, &c., advantage is taken by the enlightened Government of Dom Pedro II. of the experience of Europe and the United States. The efforts of Government to develop the country are meeting with deserved success. Still education is very backward. In 1874 there were only 140,000 pupils at school; but as it is entirely out of the hands of the priests, being in the capital under the charge of the General Assembly, and in the provinces under the Provincial Assemblies, and is to "become compulsory as soon as the Government considers it opportune," a better state of matters may dawn. Though Roman Catholicism is the State religion, all other faiths are tolerated, yet in building their places of worship the "heretics" must not give them "the exterior form of temples." Religious persecution is expressly forbidden; still the clergy exercise an enormous influence, direct and indirect, throughout the empire. Their pay is poor, and their dependence on the State so abject, that the sacred office does not attract to it the highest talent, or even morals. Ecclesiastical preferments are often bestowed on worthless persons as rewards for services rendered to a Minister of State in canvassing for votes at elections. Hence, "the true Pope of Brazil is the Minister of the Empire."* The priests are also, for the most part, very ignorant, and consider true religion and good morals best advanced by parading through the streets tawdry dressed images of saints, followed by a straggling procession of devotees, lay and ecclesiastical, from the stately marquis to the humble negro. The evening ends with fireworks; and sometimes, late at night, the police find it necessary to take care of those who commenced the day by assisting at a sublime rite of the Church, and ended it by a drunken brawl, if not by a murder. The revenue was, in 1872-73, £11,213,110, and the expenditure, £12,187,446, though for 1877 these were nearly a million lower. The total debt of the country was, in 1876, £73,580,890, nearly two-thirds of which were incurred by the costly Paraguayan war. The floating debt is, in addition, about £51,000,000; but as Brazil has not

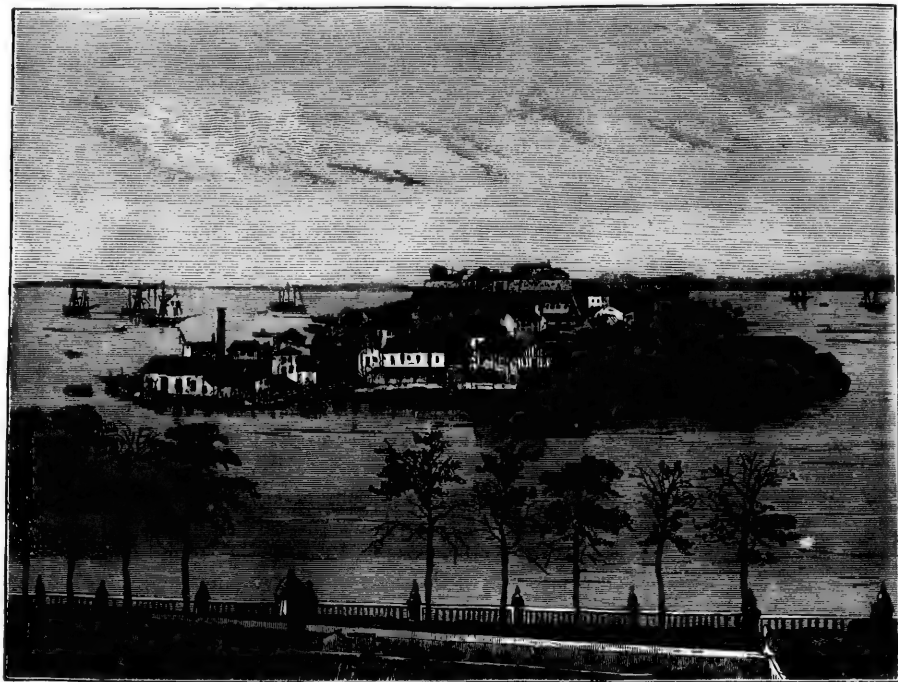
* Scully: "Brazil: its Cities and Provinces," p. 8.

yet arrived at that stage of civilisation which consists in borrowing and not paying, the credit of Dom Pedro's empire stands well in the world which concerns itself with loans and the percentages thereon. The army of Brazil is fixed at 20,000 on the peace footing, and 32,000 in war time, though there are rarely so many under arms. Conscription and liberal bounties, in the shape of money and land grants at the end of fourteen years, are sufficient inducements for large numbers to enlist; but in cases of extreme need impressment has been resorted to. In 1877 the navy consisted of fifty-six vessels, nineteen of them ironclads, in addition to several other vessels acting as guard ships in the different harbours. The principal cities of the empire are Rio de Janeiro, which, with its eight suburbs, had, in 1872, a population of 503,715; Bahia, 128,929; Pernambuco or Recife, 116,671; Maranhão, 31,604; Para (or Belem), 35,000; São Paulo, 25,000; Porto Alegre, 25,000; and Ouro Preto, 20,000 inhabitants. A complete system of railroad and water communication between the several parts of the empire has been devised, and in addition to the railroads in operation, in course of construction, or under survey, the lines of river communication assisted by Government are estimated at 24,500 miles, while there are other lines in the hands of private companies.

The principal port of Brazil is the capital, Rio de Janeiro, which, with the surrounding district, is a neutral principality, independent of the province of the same name, and, like the district of Columbia, in the United States, is under the direct administration of the Government and General Assembly. It is situated on the west side of a vast bay, and consists of an old and new town, the latter of which dates from 1808, and is separated from the former by an open space called the Campo do Honra. It is well supplied with schools, churches, asylums, and public institutions of all kinds, nearly all built within the last half century. The bay or inlet of Rio is seventeen miles in length and eleven miles in extreme width. The city is, from its position, the chief business place of Brazil, and especially of the rich provinces of Minas Gerães, and Goyaz.

The voyager who first sees spread out before him the splendid Bay of Rio de Janeiro cannot fail to acknowledge that though in the world there may be fairer scenes, he is a far-travelled man who can honestly say that he has seen any such. Coming in from the north, the vessel rounds the rugged headland of Cape Frio. From thence the land is low, and sandy near the beach; but a little way in the interior is backed by hills or mountains of varied, and even picturesque contour. Then we come to Cape Negro, and thence the scenery to the entrance of the harbour is often beautiful, and always interesting. Straight in front of us is the harbour, on either side the Pão de Assucar (Sugar-loaf), the Corcovado (Hunchback)—2,600 feet high—the Gavéa (Topsail), and the Dois Irmãos (the Two Brothers), and other mountains of singular form and great height, while at thirty or forty miles distant can be seen the peaks of the Organ Mountains (p. 125) towering through the haze to the height of 7,000 or 8,000 feet. Often when the landscape is in early morning shrouded in fog, their peaks peering through the blankets of clouds serve as guides to the shipmasters making for the port. When near the Pão de Assucar—a conical mountain—the gorge opens, and exposes the calm expanse of what is probably the finest harbour known to commerce. "The first appearance of the Bay of Rio Janeiro to a stranger," writes the editor of the *Anglo-Brazilian Times*, "is certainly the most picturesque in the world, with its surrounding verdure-covered

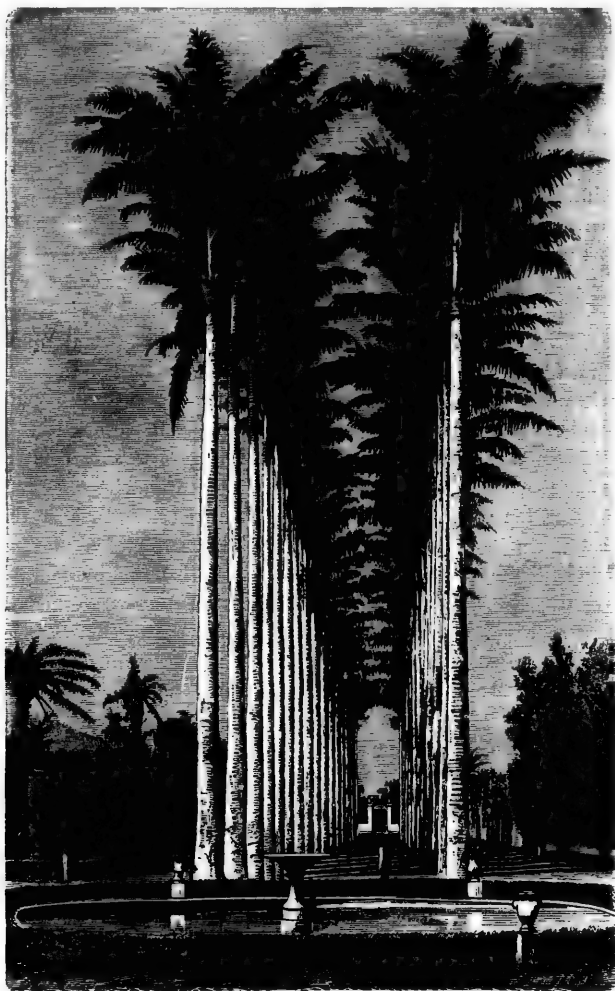
mountains, and their easy slopes covered with the richest green, plantations of all kinds, handsome country seats, and well-cultivated islands ornament and diversify the surface of the little inland sea of 105 miles circumference; and, taken in all, there is not perhaps a sight elsewhere more imposing and agreeable. To the north you see, at a distance of forty miles, the Organ Mountains, reaching along the horizon; to the left the Corcovado extends its peak over the Sugar-loaf. Hill after hill meets the eye, until the city, expanding to the view, spreads, like ancient Rome, over the amphitheatre of its seven hills and intervening valleys."



VIEW OF "THE ISLE OF SERPENTS," IN THE BAY OF RIO DE JANEIRO.

Mr. Hinchliff is equally enthusiastic. He assures his readers, that whatever fate may await them in Utopia or Sirenica, they may be pretty sure that nothing more lovely will ever be seen in this revolving world. The suburbs of the city are also beautiful, and afford endless spots for excursions. From the Castle Hill the city and its surroundings can be excellently surveyed. From this height, or still better, from the Corcovado, the environs of the Brazilian capital, studded with beautiful villas, and the extensive gardens that supply the town with vegetables, can be seen to great advantage. Descend and examine them more closely, and you will find flowers that are only familiar as exotics in Europe; and trees, the richness of which in flower and foliage will be surprising even to those who know the cool, umbrageous forests of the north. Chief among these are the mangos (*Mangifera Indica*), a tree which,

though a native of Hindostan, has grown to great perfection in Brazil and other tropical countries. The weary eye cannot rest on a pleasanter picture than an avenue of these beautiful



VIEW OF THE AVENUE OF PALMS IN THE BOTANIC GARDENS, RIO DE JANEIRO.

trees, laden with their delightful fruit and clothed with a verdure that scents the air for miles around. Another favourite evening excursion of the Rio de Janeiroans is the Cova d'Onça (the Ounce's Den), at the summit of the hill of Santa Thereza. From this elevation can be seen a panorama of mountain, valley, forest, garden, and harbour, the commingling

of which is singularly beautiful. Botafogo (p. 145), one of the pretty inlets off the Bay of Rio de Janeiro, and about three miles south of the city, is another familiar place of resort, omnibuses running to it every half hour, and steamboats morning and evening. The former route takes us along a road lined with the beautiful *palacetes* of the Brazilian grandees, while at Botafogo can be seen the splendid entrance to the Botanic Gardens, chiefly remarkable for the magnificent avenue of palm-trees (p. 149). Botafogo and Gloria may be called the west-end of Rio, for here are the residences of the chief people, and of most of the English and other foreign residents. The beautiful valley of Tijuca is another, but more distant, locality beloved of the Rio people, who are fond of country residences not too remote from the city. The undulated forest-covered hills and cascades form here a series of almost fairy-like loveliness; while from the hills around the Atlantic can be seen, and from the slope, as the visitor returns to the city, an extensive prospect of cultivated land, interspersed with *chacaras*, or country seats.* Three miles from the city is San Christovão, the winter residence of the Emperor, though in the summer the Court is usually at Petropolis (p. 128), an Italian-looking villa, surrounded by a village in the Organ Mountains, some few hours distant from Rio by steamer, rail, and road, and a most charming place of residence. Rio itself is a fine, but a hot, dear, and dirty city; in which characteristic it does not stand alone among tropical towns. Dark faces are the rule, but black ones are also exceedingly common. The market men and women are usually of African race, and so dirty that even the good wearing complexion with which Nature has endowed them is not sufficient to conceal the fact from either eye or nose. Yet if the sellers are unpleasant, the articles for sale are not. There are mounds of the most delicious oranges, stalls covered with very ugly, but probably for the tropics very excellent fishes; and prawns, reputed to be the finest in the world, and when curried, said by gourmands to be a dish worth visiting the tropics for, are among the hundred articles offered to the languid lookers on. The buildings are, as a rule, not handsome; and most of the streets are excessively narrow. Everything is dearer here than in any other part of Brazil, the rents in the best parts being enormously high, and the charges, of course, correspondingly outrageous. Hotels are few, bad, and expensive; but neat cabriolets and abundance of omnibuses render locomotion easy. The wealth, or, at least, the love of show in the inhabitants, is displayed in the equipages, which become in the tropics almost necessities, driven by negro coachmen, and guarded by sable footmen arrayed in liveries so gorgeous that, compared with these individuals, Solomon in all his glory was but a plainly-dressed Hebraic gentleman, with possibly the national taste for jewellery and loud colours. Most of these carriages are drawn by mules, but the very great grandees will, in addition, have three or four negroes, mounted on mules, to bring up the rear. The heat of Rio seems to have little effect upon the eager crowd of busy men intent on money-getting. The Exchange is crowded during business hours, and loungers seem out of their element. "Everybody looks," writes Mr. Hinchliff, "as if his whole existence depended upon some transaction in sugar, coffee, or tobacco. Immense numbers of negroes crowd continually up and down the streets with heavy bags and bales, keeping always on the move like strings of ants, laughing, joking, and singing, as they trot along with their burdens."† It is, however, only fair to say that, of late years, thanks to the display of some

* Scully: "Brazil: its Cities and Provinces," p. 179.

† "South American Sketches," p. 26.

energy on the part of the authorities, those amenities of Rio which are bound up with cleanliness have vastly increased. At one time the suburbs of the city were very healthy, but about thirty years ago yellow fever suddenly arrived and scourged the neighbourhood. It has since regularly claimed a few victims, especially in the hot months of January, February, and March. Returning to the capital, the visitor cannot but note the poor accommodation most of the houses afford for sleeping. The bedrooms are generally without windows, the Brazilians' love of grandeur causing them to devote their best rooms to the purposes of ostentation. Each floor, as in European continental houses, is usually the home of one family. The Bank of Brazil, the Hospital da Misericordia, and a few private residences, are about the only buildings of the city which would attract the stranger's attention as being worthy of any note. Education is well attended to; and under the fostering care of the Emperor, a University, as well as Historical, Geographical, Fine Art, Agricultural, and Medical Societies flourish.

Bahia, or San Salvador (p. 157), was at one time the capital of the empire, and still maintains the rank of being the second city in it. The bay on which it is situated is beautiful; but that part of the town which is erected on the low land at the foot of the hill is close, filthy, and dilapidated, and hence is apt to give the passing traveller an unfavourable, and perhaps erroneous impression of the "City of the Bay." The upper town, however, contains many fine mansions; while in the neighbourhood of Victoria are the residences of the chief foreign merchants. Pernambuco is the third town of Brazil; but in reality it consists of four towns, which are getting gradually run together, though at present at some little distance from each other. Pernambuco is the centre of the Brazilian coasting trade, and its foreign trade is only second to that of Rio and Bahia. Santarem (p. 140), on the Amazon—in the Province of Para—may be taken as a type of a third-rate provincial "city" in Brazil; while the view of the Isle of Serpents (p. 148), and the sketch (Plate XXV.) afford specimens of the picturesque scenery of the Brazilian shores and of the banks of the great river of America. It is, however, far into the interior of this vast empire that the student of mankind ought to seek the Brazilian, unadulterated by the admixture of his manners and modes of thought with those of the Europeans, or of the Parisian glossed dwellers in cities. Let us, therefore, as a preliminary to a few sketches of Brazilian manners, visit hastily one or two of the main unbeaten tracts of the empire. The explorations for railroads have allowed two eminent engineers, Messrs. Bigg-Wither and Wells, to do so; and as perhaps the most convenient way of conveying the notes we have made of these gentlemen's journeys, we may take each of them briefly in succession. Mr. Bigg-Wither went up the Valley of the Tibagy, a feeder of the Parapanema, which, in its turn, is a tributary of the great Parana, which flows through several of the southern provinces of the empire, and finally empties itself into that estuary of several rivers, which gets the name of the River Plate. First, however, a few words about the Valley of the Ivañy—a more Southern tributary of the Parana—or, at least, that section of it which lies between Colonia Thereza and the Corredeira de Ferro, or Iron Rapid. The country between these two points is generally broken and mountainous, covered by dense tropical or semi-tropical forests, and inhabited by wild Indian tribes (pp. 152, 153). Some of these are the Botucudos, whose curious lip "ornament" (*sic*), almost identical with that of the Hydah Indians, in Queen Charlotte's Island, we have figured

(p. 160). A race even more formidable are the Coroados, chiefly collected in the district between the Salto das Bananeiras and the Iron Rapids. The very name of Bugré, or wild Indian, is a terror to the ordinary Brazilian; hence the difficulty of exploring the country which they inhabit. The Tibagy Valley, therefore, offers an easier route to the interior in this direction. In the immediate neighbourhood of Tibagy are large deposits of clays and gravels, in the latter of which diamonds are found. The climate in the upper part of the valley is temperate. In the months of May and June the evenings are frosty, but the days as bright and warm. The air is invigorating; and, contrary to the usually received opinion, that the nearer the equator the greater becomes the requirement for stimulants, on these prairie regions the human constitution, according to Mr. Bigg-Wither's



INDIANS OF BRAZIL.

experience, feels a less craving for stimulating drinks than it does in higher latitudes. The population of Tibagy and its neighbourhood is about 3,000. The people, who have the blood of three distinct races in their veins, namely, Indian, Negro, and Portuguese, are agricultural, and though neither enterprising nor hard-working, are a frugal and contented race. "Their triple nature exhibits an odd mixture of good and bad qualities, and it is only to be understood by long and intimate acquaintance with them. Hospitality to all comers is their great creed, and one which the traveller most appreciates. General laziness, both of mind and body, is the characteristic of all but the richer classes of the people. This bad quality certainly cannot be produced by the climate, but is, more probably, inherent in their nature itself, and is, no doubt fostered by the extreme ease with which their livelihood can be obtained. The result is that, with the wealth of a kingdom around them, they are content to pass their lives in a state but little less brutal than that of the wild Indians. This picture is only a production of what may be seen in so many other of the outlying settlements of the interior of Brazil; and the thought cannot help forcing itself upon the mind of the traveller who sees all this, that the people are not worthy of the country." At 1,600 or 1,700 feet above

the sea level pine-trees become common. Below this line they suddenly and completely disappear, and their place is taken by more tropical types of vegetation. On the umbrella-like summits of the tall trees—130 to 140 feet in height—innumerable flocks of parrots, Brazilian jays, and monkeys nestle during the fruit season. In the midst of these forests the explorer suddenly comes on flat, bare little patches of *campo* or prairie, unlike their surroundings. Many of these patches are indeed so flat that the water from the surrounding more or less undulating forest permeating them, they become more like swamps than anything else. These phenomena are probably due to old volcanic action, which has thrown



INDIAN HOUSES IN BRAZIL.

out masses of lava. The action of the weather has worn away the surrounding rock, converting it into soil, so as to enable it to bear a tree growth, but in these campos has been unable to affect the harder strata, or vitrified sandstone, thus leaving a shell of soil too poor to support forest. Here, then, is a vast region covered with a fertile soil and a dense growth of virgin forest, but inhabited only by a few wandering tribes of Indians, and likely to be in a state of nature for ages yet to come, unless, indeed, the long-meditated road is constructed down the valley. The jaguar, or South American tiger (*Felis onca*), exhibits great boldness in this wild tract, which it has so long considered its especial home; but wild pigs, tapirs, and deer are also very abundant. Jatahy is another of these stagnant backwood Brazilian villages, which seem normal to the country whenever the busy coast region or that in the immediate vicinity of the great rivers is left behind. Mr. Bigg-Wither sums up his

views of this district in the following words, which I prefer to give in their entirety:—"This region," he remarks, "contains within itself every variety of climate, from the temperate to the tropical, and is suitable for the production of all kinds of necessary food. It has its pastures for the breeding of cattle, and its rich forest land for the cultivation of the various kinds of vegetable produce. Water and timber abound everywhere; and the climate throughout is unsurpassable in its salubrity. What, then, is wanting in order that these great natural advantages may be utilised? The answer seems plain. What is wanting is a more enterprising, energetic, and, above all, honest race to take the place of the mongrel native. With this change everything else would follow. The Government is already liberal in its support; but, as everybody there knows, not one-tenth of the funds supplied ever go to their legitimate object. They are, in plain language, appropriated by the various officials through whose hands they have to pass. It is this pervading low standard of morality which has hitherto paralysed, and will continue to paralyse, the development of the country. Now, of all parts of the province of Parana, this district is the most suitable for the foundation of an English colony. If, therefore, instead of spending thousands of pounds in the attempt to establish an English colony at Assungui, about which we heard so much a few years ago, which place, buried as it is among a mass of hills, mountains, and impenetrable forests, is altogether unsuited to the purpose, the same money had been spent in founding the colony on a spot whose progressive capabilities were a matter of certainty, and where ample room existed for its development, much credit might have been saved to the Brazilian Government and great profit gained by both parties." Tropical colonies, when the white man has to be himself the labourer, can never succeed. Hence an English settlement in Brazil, should such a settlement be persisted in, must be formed in a temperate region, and on the border of the forest, not in its depths. At Curitiba a large and thriving German population has sprung up and prospered out of very small beginnings, simply because the country and climate are suitable for the people, and there is a market for their labour. The same might be the case in Tibagy, a fertile area of 20,000 square miles, the name of which is as yet unknown in the outer world, and is even in its own province little better than a *terra incognita* to the greater part of the inhabitants.*

Mr. Well's route lay through a region at almost the other extremity of the empire, in the Provinces of Bahia, Maranhão, and Para, and so affords us an opportunity of contrasting two widely separated parts of the country. The Rio Grande is one of the most important affluents of the San Francisco—important not only for its size, but for the combination of navigable streams that flow into it. Long belts of mauve-coloured water-lilies fringe the banks of the rivers, while above them rear a few graceful Carnahuba palms. This tree—the *Copernicia cerifera* of botanists—is one we have already (p. 132) noted some of the many uses of. In these districts it exists only in small quantities, but in the Provinces of Ceará and Rio Grande do Norte it grows uncultivated in great luxuriance. It resists the most severe and longest droughts, keeping always green and flourishing. The root possesses medicinal properties identical with those of sarsaparilla. The strong light fibres extracted from the trunk take a high polish. The wood is used for props, joists, and other building purposes, as

* *Journal of the Royal Geographical Society*, Vol. XLVI. (1876), pp. 263-277, and work already cited.

well as for stakes, musical instruments, tubes, and pumps. The inner rind of the young leaf when fresh is highly valued as a most nutritious food. In addition, the tree affords "wine" vinegar, a saccharine substance, and a great quantity of gum, not unlike sago, and possessing much the same properties and taste, which, in times of severe drought, has often been the only food of the poorer inhabitants of the provinces in which the tree grows in greatest abundance. A kind of maizena-like flour, and a whitish liquor like the "milk" contained in cocoa-nuts, are also extracted from it. The soft fibrous substance in the interior of the stalk, and that of the leaves, form an excellent substitute for cork. The pulp of the fruit is agreeable to the taste, and the kernel, which is very oily and emulsive, after being roasted and pounded, supplies one of the many substitutes for coffee. The dried leaves are made into hats, mats, baskets, and brooms, and already a considerable trade is done with Europe in the "straw," which can be plaited into fine hats, some of which are sent back to Brazil, and probably re-exported as the finest "Panama hats." Last of all, the candles used in the Northern Provinces are for the most part made of the wax extracted from the leaves, and which wax gives the palm its specific name of "wax-bearing." Indeed, the village of Boquerão is mostly built of the materials obtained from this valuable tree. In the forests back from the river are found immense numbers of the caetetus, a species of peccary (*Dicotyles labiatus* and *D. torquatus*), also the guarà, or red wolf (*Canis campestris*), the sucuarana, or puma (*Felis coucolor*), and many other wild animals, though in time, when the rich grazing lands of the country about get properly utilised, domestic cattle will dispute the ground with the *feræ naturæ*. The shallow lakes abound in ducks and other aquatic birds, while the land, only raised a few feet above the level of the river when at flood, is covered with the thin wiry grass called *Capim agreste*,* which, however, affords but little nutriment to cattle. Here and there the thickets of Carnahuba and Burity palms, with other trees, give a park-like appearance to the country. After leaving Santa Rita—120 miles from Cidade da Barra do Rio Grande—a town of 1,400 people, the country changes much. No longer do the flat sandy plains of the lower river appear, but hilly country covered with dense forest is the prevailing appearance of both sides of the stream up which the canoe is being laboriously "poled." Mr. Wells describes these forests as not so magnificent as those in many parts of Brazil—those, for instance, of the Serra de Mantiqueira, the stately *Anacardia (Brasiliensis)* groves being much grander. Yet the great primeval woods of the Rio Preto, which flows into the San Francisco, are invested with a degree of grandeur unknown in our latitudes. "The peculiar features," he writes, "of these forests are the barrigudo and the gamelleira. The barrigudo (*Chorisia ventricosa*) is a tree with a trunk growing sometimes to eighty or ninety feet high, and then branching out into horizontal boughs; half-way it swells out to sometimes double the circumference of its base. The gamelleira, a species of wild fig (*Ficus dolioria*), growing to an extraordinary height, is still more peculiar, for jutting out from its base are perfect buttresses, sometimes ten or twelve feet high, consolidating and giving support to the giant. A kind of 'cotton' is obtained from the barrigudo, and canoes are often made from the gamelleira, though it does not make the most durable kind." There is a peculiar musty odour in these forests,

* Probably a general name for *Echinolena scabra*, var. *ciliata*, *Panicum campestre*, &c.

which is said to be exuded by a certain shrub, but is also the smell exhaled by snakes, which, unfortunately, are also numerous, though not to the extent which popular accounts would lead us to imagine. In March and April heavy rains fall in these parts. The rivers are then swollen to sizes far beyond their ordinary dimensions, while the more precipitous ones come rushing down in a flood that carries all before them. In this part of the river—1,807 feet above the sea level—is the village of Formosa, a collection of sixty squalid huts picturesquely scattered amid a wealth of tropical vegetation. Trees and bushes grow into every unfrequented place, and in many places the weeds are so high in the "street" that the houses on the opposite side are effectually concealed from view by the tall herbage. The climate is warm and moist, and the inhabitants, after the rudest fashion, raise good crops of maize, beans, rice, sugar-cane, castor-oil plant, and mandioca, which they send down the river on rafts made of the dried stems of the Burity palm (*Mauritia vinosa*), to Santa Rita and Cidade do Barra. At Santa Maria, at the mouth of the Rio Sapão (Big Frog River), the Indian frontier commences, a fact which may be learned from seeing that the six or seven huts which compose this inland hamlet are fortified in a primitive way. The inhabitants have taken this precaution, not without good reason, for Santa Maria has been the scene of many a savage Indian fight.

The Rio Sapão is a deep, sluggish stream, flowing through marshy land, but too narrow to be of any service as a navigable river. Along its course are magnificent belts of forest, or groves of the Burity palm; while low, undulating lands on each side extend from two to five miles back from the banks, covered with ground palms, small bushes, and thin, coarse, hard grass; in a word, such vegetation as may be familiarly seen on the Campos Geraes of Brazil (p. 161). "Sometimes," remarks Mr. Wells, "beyond these low lands the land suddenly rises up almost perpendicularly, and becomes a vast arid table-land, but abounding in most kinds of game found in Brazil, such as the porco do matto, a true wild boar, rarely found anywhere else, and not to be confounded with the caeteté, or peccary (p. 77); deer of several kinds, the galheiro and the campeira, the buck and doe of the Campos; and the stately sussuapara, the largest deer in Brazil, but whose flesh is not eatable. There is also the ounce, or jaguar, the suçuarana (puma), the black ounce, and the guara, and near the river we saw numerous tracks of capivara (water hog), paças (*Cavia Paca*), and tapirs in extraordinary number. Red and blue, red and gold, and purple macaws, and green parrots continuously by us, making the hill-sides echo with their discordant screeches." Mile after mile would sometimes be covered with the extraordinary looking Canella d'Elma (*Tellozia*), with its beautiful lily-like flower. The air is as exhilarating as the atmosphere in any part of the world, and one could almost imagine from the florid picture that here at last is the long-sought-for elysium of the good traveller. But, alas! there are other sides to it. Vampire bats are many; and the unconscious sleeper may wake up in the morning feeling faint and miserable, and yet, until he examines his great toe or some other exposed part, be unable to understand in what way the life has been sucked out of him. Pedestrians must also keep a sharp look out for the cabeça de frade, a ground cactus, a foot in diameter, and only an inch or so above the ground, yet covered with long spars, which cause a fearful wound in the foot of the unhappy person treading on them. But of all the terrors by day or fiends by night along the Big Frog River, the ones most dreaded are the porcos do matto, the fierce wild pigs which haunt these primeval forests. They will not

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VIEW OF THE CITY OF BAHIA, BRAZIL.

wait to be attacked, but will track the traveller with that keen scent after blood which seems to rule in this fierce porker. Mr. Wells' men were very excited over this question when they saw the ground in one place furrowed and rooted up in all directions by the pig. They turned away, but "old Antonio, one of our men, said they would be sure to follow us. Accordingly we made every preparation by placing the pack-saddles and the baggage in the form of a hollow square, making a breastwork three or four feet high. Those who had hammocks slung them high up in the adjoining trees. The men were too sure of a visit to sleep for a long time, tired as they were. However, late at night we posted two sentinels, and turned in. An hour or so before daylight I was awakened by the alarm of pigs. The men who had no hammocks hurriedly scrambled in behind the luggage. In an instant the pigs were on us by hundreds, gnashing their teeth in a most unpleasant manner, making a sound like the breaking of thousands of hard, dry sticks, while the stench from their bodies was most revolting. As every man had cartridges ready and arms loaded, they soon received a volley, and retreated, but charged again immediately. The men behind the baggage had to fight with their long knives. Myself and the men in the hammocks were all safe, and made every one of our shots tell on the black seething mass of bodies. At first it was an anxious time, but the pigs gradually drew off to a more respectful distance, and so we remained perfectly quiet. At daybreak they went away. Our baggage, though, had suffered terribly. The raw hide covering of the pack-saddles was slit as though by an adze, and one of the men was badly hurt in the wrist. We found seven pigs dead, and five badly wounded, but numbers of the wounded must have got away. These animals are true wild boars, with long, black, projecting tusks, and thick, black bristles on their backs." The *Barity palm* generally indicates morass or streams, while the *capim agreste* grass, unless fired, always presents this sombre burnt-up appearance, which detracts greatly from the other fresh aspect of the landscape. Here an observation of Mr. Wells may be recorded. All the mountain ranges of Brazil running north and south are considerably steeper on the western side than on the eastern, a fact which is apparent in the part of the country we are now describing. Brazil abounds in game; among others the perdic, or Brazilian partridge, which is found in great numbers. Wood, river, and swamp abound. Hence the traveller, who may have laid down a bee-line for himself on the map, finds that before reaching his goal, he has to make many and many a weary detour in order to avoid these obstacles in his lonely march. Not far from the isolated little hamlet of Espirito Santo—as lonely a place as the world knows of—is a fine waterfall. The Rio Somninho, when it joins the Rio Preto of Goyaz, becomes the Rio do Somno (the River of Sleep). The waterfall of eighty feet in one drop is just at its junction. The morass contains immense numbers of the water-boas, which sometimes attain the length of forty feet, and it is even affirmed of sixty feet. The River of Sleep is one of the most picturesque streams in Brazil. The upper part flows between perpendicular walls of parti-coloured rock, often a hundred or more feet in height. Endless cascades flow from the heights above; palms, ferns, and flowers take possession of every crack and crevice, and shelter the rock, giving the lofty banks a most charming appearance. Here also may be seen the great nests of the shupé bee, sometimes twenty feet long. The honey and wax which they produce in great abundance supply an article of commerce to some of the Indians or other semi-civilised inhabitants, who collect them. The lower part of the

river is not so picturesque. The banks are lower and more regular, and clothed with forests of great luxuriance. Here may be found many different kinds of palm, and even the wild banana. Innumerable monkeys, marmosets, ant-eaters (p. 133), as well as macaws, parrots, and other birds make the forests lively. Insect life, of course, swarms; and tapirs, capivaras, and alligators can be seen on every sunny bank. The whole region from San Francisco to the Tocantins is singularly free from mosquitoes and the other insect pests, including even the carapatos, or ticks, the greatest misery which travellers in Brazil have to experience. The scenery on the Upper Tocantins is not so fine. The forests are insignificant, without grandeur or beauty, and become all the less remarkable when compared with the broad, long reaches of the river, sometimes extending for eight or ten miles a-head, making the horizon of sky and water. On the Tocantins human habitations begin to be common. Every few miles are a hut and its small attached plantation. But the inhabitants of this portion of Dom Pedro's empire add little to its development. They do not live; they vegetate. They increase certainly, as do the trees and the animals around them; but they raise only what they want to maintain life, in this respect being again analogous to the forest denizens around them. But they are surly, proud, and naturally independent. Nature is here so generous to her children that their trifling necessities of life can be obtained almost without labour. Fish can be got from the river in almost any quantity, game swarms in the forest, and a few roots of mandioca put into the ground supply the cultivator in due time with bread at even less cost than he obtains his meat. The tanned hides of deer furnish him with the limited wardrobe he requires, while the exuberant forest all around him contains the raw material for the every other want of these listless, dreaming children of the sun. River dolphins (*Inia Boliviensis*) are often seen in the Tocantins. They rise to the surface, give a deep sigh, then "blow," and send a cloud of vapour into the air. It is curious to see an animal belonging to an order which we associate so closely with the sea found so far inland. Yet on the Tocantins and the other great rivers of America in these latitudes there exists an irregular kind of whale fishery, though in this part of the river it is not pursued, probably owing to the fact that the oil which can be obtained in considerable quantity from the animal's blubber cannot be utilised or sold. Away from the river, in the territory of the wild Indians, can be seen fantastic ranges of hills, in which gold is said to exist. But as the Ishmaelites have hitherto been sufficiently skilful in phlebotomy to awe the explorers, the world knows but little of the water-shed of the Tocantins and Araguaya, and its mineral riches. The "Indos" have a wholesome suspicion in these parts of the "Christianos," as, with charitable laxity they style the Brazilians. Carolina was once an Indian village, and though it ranks as a cidade or city, it is but an insignificant place of 1,500 inhabitants; the houses are built of adobe and sun-dried brick, and tiled or thatched. Of course, like all Brazilian, and it may be added Spanish towns, it has a square and a whitewashed church. Carolina, nevertheless, has one distinguishing feature which, to its credit, ought to be related. Usually these out-of-the-way towns are in a continual ferment from politics, jealousy, or intrigue. Carolina, on the contrary, seems a quiet place, where the inhabitants live in kindness and good-feeling with each other. From here the country may be crossed to Maranhão on the sea. Part of the country lies over the open Campos Geraes. But the horses and mules are in this part of the world poor and scarce; and, accordingly, though every province has its own way of packing a

mule, the muleteers are more careless and less expert the further north we go. Yet even in this section of Brazil skilful horsemen abound. It is a favourite amusement of the horsemen of Carolina to dash alongside a runaway bullock, seize him by the tail, and turn the astonished animal upside down. Soon, however, the country gets hilly, and by-and-by the hilly land becomes more regular, thinly covered with grass and a few trees, or sometimes consists of long flats of sandy waste, or boggy places concealed with matted grass and bush, through which horses can be taken with great difficulty. By the side of the streams grow an immense number of palms, the names and effigies of which will no doubt be found in Von Martin's great work on that order of plants, or in the lesser treatise of Wallace. Another tree, which Mr. Wells denotes as growing in this section, seems likely to be of economic value. It is peculiar to the province of Maranhão, where it is locally termed "merim."



POTOCUDO INDIAN OF BRAZIL.

It is a large, wide-spreading tree, with ragged, rough bark. "Upon gashing the tree a volatile, inflammable fluid oozes out, at first smelling like kerozene, but, on exposure to the air, its odour changes to the delicate perfume of violets. I am told that it yields an immense quantity of oil, but is not applied to any use. The tree is but little known, even where it grows." More hills, more rivers, more "Campos Geraes," might be the stereotyped entries in a journal of travel over this country. Gold and copper exist in the hills, the latter, indeed, in great quantities, though, like many of the other mineral riches of Brazil, it is still unworked. The rural population are, as a rule, low and ignorant, and sometimes—though that in Brazil is rare—even unhospitable to a wayfarer who seeks the shelter of their houses. The Rio Grajahu is another of the streams in this section. The Villa do Chapada is a thriving settlement on the east side of the river.

Here a brisk trade is done with the surrounding country, the traders taking down the river raw hides, and returning with cotton goods, salt, and hardware. The Anambeios and other tribes of Indians also frequent this village for trade and curiosity. The tribe named live on the Tocantins, below the River Araguaya. They are very pale in complexion, and are known as the White Indians, though the Indians in the immediate neighbourhood—such as Guajaras and Grammellas—are of the usual aboriginal type: short in stature, very deep-chested, and powerfully built, light brown in colour, and in physiognomy decidedly of the Mongolian type. The upper part of the Grajahu is high and rocky, densely covered with firs, and with here and there a few civilised inhabitants. But lower down all habitations cease, and the country then becomes a virgin forest, stretching in one all but unbroken expanse to the Tocantins and Para. But though the forest district is without civilised denizens, it is not unpeopled. In it reside many tribes of Indians, some hostile, and others friendly to the whites, and engaged by them in the laborious work of poling boats up the river to Chapada. The highlands passed, the course of the stream is through a vast extent of lowland and morass. Here by day the heat is terrific, and the

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GATHERING THE COCA PLANT (*Erythroxylon Coca*) IN BOLIVIA.

sand-flies, in dense clouds, soon bite the wretched voyager into a condition bordering on fever or madness, and at night mosquitoes in myriads effectually kill sleep with their stinging and humming, which are almost as bad. The forests on either side of the river are almost different from the thick jungle higher up. "For a little way from the river the ground, covered deep



SCENE IN THE CAMPOS OF SOUTHERN BRAZIL.

with the decaying leaves of centuries, is perfectly free from bush ; and I could sometimes see so far into the forest that the far-off trees looked blue with the distance ; but overhead branches and foliage were interlaced together in one entangled mass of creeper and vine. From the branches the creepers dropped their air-roots like ropes, to take fresh life from the ground. These forests abound in jôó, or quail, whose melancholy notes alone

disturb the solemn silence of the woods. . . . The banks of the river are very picturesque, bordered as they are by all the beauties and wealth of a tropical vegetation—palms of several kinds, tree-ferns, and graceful bamboos, and trees festooned in flowers, among which gambolled several varieties of monkeys and marmosets. Macaws, parrots, toucans, and other birds flashed their gaudy plumage everywhere; long-necked white herons and other aquatic birds flew a-head, almost skimming the water." Electric eels—the tremé-tremé, peixe d'anguia, or poraqué, as it is variously named by the Brazilians—deter bathers from venturing into the water, while the prevalence, in immense shoals, of the ferocious piranhas (*Serra Salmo*) effectually restrain the ardour of those who might not be terrified by even an electric shock. Entering the river, the voyager, on his way to the sea, soon arrives at the town or villa of Victoria, a place of some 2,000 inhabitants, carrying on a considerable trade with the coast and interior. After the Pinaré flows into it, the Mearim widens out to a mile or more, the bed of the river being at every low tide exposed in broad, black flats on either side of the deeper current in the middle. Such scenery is melancholy in the extreme. The sun is burning, and the mosquitoes are fierce and very many. The muddy banks, topped by the weird roots of mangroves, are here and there enlivened by flocks of red flamingoes, which disport themselves there; or the loathsome-looking alligators which open a sensual eye on the plump biped who skims past them, half asleep, on their slimy beds.*

The immense waterways of Brazil promise a great future for her should her destinies be guided by as firm and judicious a hand as that which now holds the helm of state. This it would be easy to prove did space permit, as the literature of Brazilian hydrography is now getting extensive. Equally would it be a pleasant task to pourtray at greater length the exuberant natural history of the great empire of the Amazonian Valley. But both have been done quite as extensively as our pages spare room for. And should the reader desire to learn more, there are in the English language, accessible to him, the writings of Bates, Wallace, Wickham, Chandler, Church, Mulhall, and a score of other equally trustworthy explorers.

CHAPTER XI.

BRAZIL: MEN AND MANNERS.

THE Brazilians have many of the faults, most of the vices, and all of the virtues of the race from whom they spring. In addition, they have a few weaknesses peculiarly of native origin, and some good traits of character due to a freer government and a more extended view of the potentialities of life than are possible to the dwellers in the pleasant but circumscribed Lusitanian Peninsula. Like most nations who have been cursed with slavery, they are visited with the miseries of the system. They are easily led astray by flattery, vain, often weak, effeminate, and luxurious. The climate furnishing food with so little labour, enables them to live at ease, but at the same time, if need be, at little expense, and with great simplicity if

* Wells: *Journal of the Royal Geographical Society*, Vol. XLVI. (1876), pp. 308-328.

they are so minded. They are as a rule generous, hospitable, and charitable; but combine with these estimable qualities a tendency to cherish grudges, and to wait an opportunity of taking vengeance. Homicides, with this motive, are numerous, especially in the central and northern provinces, where education and refinement are very backward; though crimes against property are fewer than in most European countries. Religious life is dull. The women are often devotees, but except among the lower classes, the men are very lax, and indeed often sceptical. As in Mexico and most other Spanish-American countries, there is a great antipathy to "take holy orders." Indeed, in Brazil, such is the scarcity of candidates, that priests have to be imported from Italy. The priests are, however, very intolerant. In 1870 the Jesuits were expelled from the province of Pernambuco, and of late years the attempts on the part of the clergy to crush freemasonry by excommunicating the members of the craft have caused much ill blood, and may eventually lead to even serious changes in the relation of Church and State. Brazil already possesses a literature. In epic poetry it is rich, but dramatists are few, and historians and publicists not many, though, as they number among them Coutinho, Lisboa, and Pita, they are of considerable eminence. The taste for music is very generally spread in Brazil. There is an Italian theatre in Rio de Janeiro, but the compositions hitherto published by native artists are not of any great note. The fine arts are nurtured by an academy in the capital, and by State subsidies employed in sending the most promising students to study their profession in Italy. There is a perfectly free press, conducted for the most part with great good taste, and some ability. In Rio there were, in 1877, six daily papers, and throughout the empire altogether 200. Political feeling often runs high, but always stops short at attempts at revolution. This may be owing to the popularity of the Emperor, though it is also in a great measure due to the system of government, which, though allowing perfect freedom, is hedged round with many checks, the absence of which has permitted the neighbouring states to every now and again rush to destruction, without its being the business of any one to clap on the drag, or, indeed, in the power of any one to prevent the machine from going to ruin. There is a nobility in Brazil, but it only dates from 1822—the year of the declaration of independence—and possesses no special privileges, either social or legislative. Titles, moreover, can only be held for one generation, the rank dying with the father, unless the son can establish a claim to the distinction on the same grounds as those for which his father obtained it. These are the Brazilian "peers." But in reality there are a great many others who enjoy a sort of brevet rank. These are gentlemen who are descended from noble families in Portugal who have been long in the country's service, or are very wealthy. Such claims to be admitted into the aristocracy are readily admitted by "society." There are three degrees of nobility—marquis, count, and baron, in addition to the title of knight (*moços fidalgos*), obtained by admission into any one of the six orders of chivalry founded or adopted by the present Emperor and his father. As usual with such "distinctions," a cross is very easily obtained, and the Emperor's numerous visits to Europe have resulted in that of the "rose" dangling from the button-holes of some very obscure representatives of the equestrian rank, of even Brazil. The result is, that the aristocracy, being continually recruited from the democracy, and liable at any time to return to the rank from which they sprang, do not consider themselves a superior race of beings, except in so far that they are for the most part the pick of the population of the country. The officials are polite,



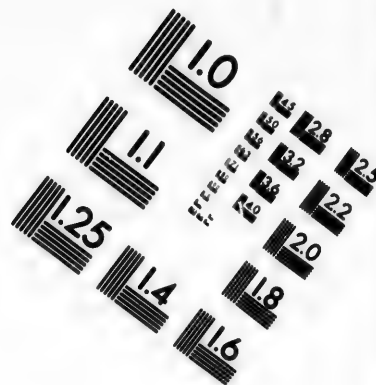
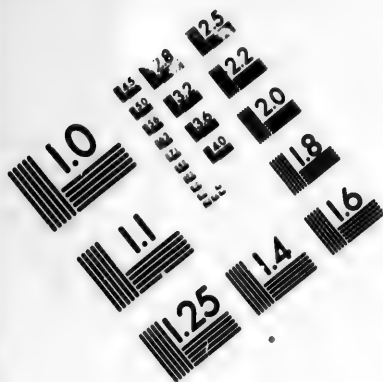
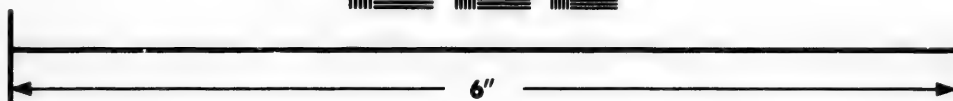
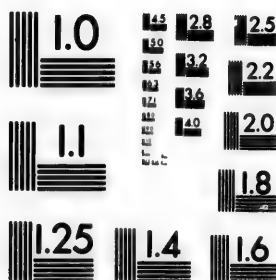


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and easily accessible, and the "upper" classes requiring some higher qualification than the not uncommon one of possessing a father, are as a rule men of good morals, great merit, and sometimes even of learning. The people are rather fond of show, the latest Parisian fashions being as familiar in the streets and ball-rooms of Rio and Bahia as in London or Berlin. The ladies are also much addicted to jewellery, though at home they dress in very plain attire while pursuing their household occupation, or to use Mr. Scully's phrase, "while employed industriously in some small domestic economy." They are often very attractive in physique, but like most women of hot climates, their bloom is usually gone by the time they are thirty. At that critical age, they also usually develop a tendency to corpulence, which, however, does not detract from their beauty in the eyes of their appreciative countrymen. The Brazilian ladies are rarely learned, their taste for polite letters and science being almost nil, but in music of the Italian school they are frequently experts. Mr. Scully describes the Brazilian gentleman as temperate and frugal, but indolent to the last degree. *Espere um pouco* (wait a little), *amantiã* (to-morrow), and *paciencia* (patience), are words very frequently heard in Dom Pedro's empire. "Some yield themselves up to the charms of literature and science, but most of the upper class are content with a monotonous daily round of existence, made up of many naps during the day, gapes over the balconies in the afternoon, and a *réunion* in the evening, with an occasional visit to the opera. In truth, the warm and mild climate predisposes to indolence, and the youth, after having passed through the ordinary course of a college education, or having loitered a few years with a private tutor, enters a public office, or sinking into domestic insignificance, fritters away his life in indolence, or in the endless frivolities of street perambulation. In fact, the great want in Brazil consists in the out-door games, the debating clubs, the cheap concerts, the lectures, the periodicals, and the various appliances which the European at home has at his command, to strengthen and improve his mind and body, and which would be of incalculable service to the youth of both sexes in this delicious but somewhat enervating climate. And thus it is that the situation of the young Englishmen, sent out as clerks to the many English mercantile houses in Brazil, become most deplorable. Placed by their employers in a house with one or two negroes to attend them, and rigidly shut out from the society of their compatriots by that snobbishness of English intercourse abroad (nowhere greater than in Brazil), which makes the tinker of kettles dread contaminating association with the tinker of saucepans, these, in many cases gentlemanly young men, too often take refuge from the dreary monotony of their existence, and from their feelings of isolation in a foreign land, in all the excitement of immorality and dissipation." The rural Brazilian is proud, and poor because he is unnecessarily proud. The Portuguese settlers are, on the contrary, generally industrious, and reap in competence or in improved position in life the reward of their exertions. To strangers they are courteous and even kind, and amongst themselves very sociable, though excessively ceremonious, a ceremony which, moreover, exists among all classes. One negro when meeting another will politely raise his hat—or what remains of it—with a *Salveo Deos*, or *Deos the de bonas dias*, followed by a string of conventional inquiries regarding their mutual families and relatives, and will part with an equally ostentatious show of politeness. When speaking to each other, Brazilians remain uncovered until desired to put their hats on, which again gives an opportunity for a little polite bye-play. When a stranger enters a room everybody rises and salutes him. The master of the house goes to the

door to greet him and usher him in, and when going away the same ceremony is observed, only the order of going is reversed. The *Adeos* and bowing commence at the top of the stairs: are renewed a few steps down; re-commenced still lower, and perforce are finished at the door, when the guest turns round and salutes his friend with a few more bows and polite nothings. If familiar friends meet, an embrace of a most emphatic description is added. The ladies are scarcely so ardent in their demonstrations at meeting and parting, but on all occasions they kiss profusely on both cheeks, these buccal osculations being perhaps not more



VIEW IN A SUBURB OF RIO DE JANEIRO.

Judasaical than the labial ones familiar in female intercourse nearer home. Like all the Latin, and, indeed, Teutonic races, the Brazilians are very particular in giving every person their proper title. Every person in the ranks of the aristocracy, that is, every *fidalg*o and individual holding office under the Government, must be styled *vossa excellencia*—"your Excellency." Bishops are similarly addressed. A simple priest is called "your Reverence;" and all persons of respectability *vossa senhoria*. Ladies without distinction of rank are styled in conversation *vossa excellencia*. In writing, the *excellencia* order of individuals are addressed *illustrissimo e excellentissimo senhor*; or, if a lady, *illustrissima e excellentissima senhora donna*. All others are entitled to receive on the envelopes of their letters *illustrissimo senhor*. "In writing to a superior, etiquette requires you to sign your name at the very bottom of the page, and the superscription is generally placed at right angles with that on

English letters. The name is preceded by the *illustrissimo e excellentissimo senhor*, or in accordance with the rank, and is followed by three *et ceteras*; and if occupying any high office, it is customary to put under the above *dignissimo*, with his official title. If sent by hand the name of the writer is placed at the bottom."*

Fashionable Rio betakes itself during the hot months to Petropolis, a German colony in the Organ Mountains, where are the Emperor's summer palace (p. 128) and the residences of many of the wealthier classes. The wooded mountains, the wealth of tropical vegetation, and other natural beauties, by all accounts, make this Brazilian retreat, 2,300 feet above the sea, an earthly paradise. Beautiful palm-lined paths lead from the town in every direction, until they are lost, as all things are in these countries, in the primeval forest, with its close undergrowth of ferns, or its showers of orchids, suspended from the branches of the great trees, while overhead streams the sun through a veil of green. But the exigencies of civilisation are marring this beautiful scene. Everywhere the industrious colonists are firing the bush so as to clear the land for maize and other crops; very necessary, no doubt, but still almost heart-breaking to the naturalist, who loves tall palms and bamboos, and is not pecuniarily interested in Indian corn. But no effort of man is ever likely to alter materially the beauties of the panorama from the summit of the Alto do Imperador, with the bay of Rio as its boundary, or the loveliness of the falls of Itamaritz, in the heart of the Serra da Estrella, tumbling amid banks of ferns, ipomæas, and passion flowers. Another of their summer retreats is Thersesopolis, near the highest peak of the Organ Mountains. A pleasant ride is this spot from Petropolis, along mountain-paths—though among great *auracarias*, or marshy jungles, clusters of aloes, with candelabra-like spikes of flowers, masses of *Brugmansia suaveolens*, or "daturas," as Mr. Hinchliff calls them, overhanging the banks of the little rivers, and "filling the air with the sweetness of their long white bells," castor-oil trees, and spreading wild figs, even though the road is steep and in many places even difficult for the inexperienced traveller. Travelling in this part of Brazil is, as yet, when not undertaken on the river, accomplished by means of horses, mules, or stage coaches, though in some of the more out-of-the-way districts the lady, borne on a litter and attended by her slaves, is not an uncommon sight. Communication with the interior will ever be the standing trouble of Brazil. For instance, according to a report furnished to the Foreign Office in 1875, the United States had one mile of railway to every 56 square miles; Canada, one to every 148; Chili, one to every 298; Costa Rica, one to every 317; Honduras, one to every 638; the Argentine Confederation, one to every 955; Uruguay, one to every 1,290; Peru, one to every 1,240; Paraguay, one to every 2,334; Mexico, one to every 3,435; while Brazil had only one mile of railway to every 7,573 square miles of territory. Invention and adaptation are not Brazilian characteristics, and, in the rural districts especially, the agriculturists are too much devoted to the ordinary daily life of their class to spare much time to the effort to grasp what is recondite and profound. They have not had the opportunity of observing the progress of other countries, and their faith being therefore weak, they hesitate at investing their means in what they look upon as merely speculative. The Government is, in such matters, not much more enlightened. It could do much for agriculture by establishing central schools, building cheap railways, and founding rural banks. But they never dream of doing so—or perhaps they only dream, for beyond remitting the duty on agricultural machinery, little or

* Scully, "Brazil, its Provinces and Chief Cities," pp. 4-12.

nothing has been done to foster what may always, in a country like Brazil, be the backbone of the empire. Export duty on the principal articles of Brazilian production is eleven per cent., while his other "burdens" are of such a nature, and levied in such a way, as to effectually crush the life out of the little farmer who has any greater ambition than simply to vegetate on little farms.

The Indians, though playing their part in the troubles of Brazil, are, as yet, only important from their numerical position. Scattered through the empire are many tribes still in their pristine freedom. In addition, there are others half civilised, and a vast number in the vicinity of the back country towns on the great rivers who are as much Portuguese as Indians, owing to the intermarriage of the settlers with their ancestors. To the first class belong those living in the forests and campos (p. 161) of the interior, whilst to the latter may be assigned the tribes dwelling in the maritime provinces, where they have become amalgamated with the settled population. They have all the American aboriginal characteristics. In build they are usually muscular, with well-shaped hands and feet, dark snaky eyes, copper-coloured skin, and long, straight hair, unless, as now and then happens, as probably is the case with those figured on p. 152, there is a strain of African blood. Their subdivisions are almost endless, but they are believed to be all sprung from one stock—the Tupi-Guarani. Most of them now speak the Lingua-Gera, a language adopted by the Jesuit missionaries from that of the Tupenambaras, one of the large Eastern tribes—this tongue or jargon serving, on a wider scale, somewhat the same use as the Chinook jargon of North-West America, or the Lingua Franca of the Mediterranean. The Botucudos (p. 160), who wander through the forests between the Rio Doce and the Rio Pardo, are one of the few tribes who have thoroughly eschewed the white man and his ways, and, therefore, strictly deserve the name of Gentios, which the Brazilians apply to the aborigines who do not, ostensibly at least, profess civilisation. The Mamelucos are half-breeds, who have at different times made raids on the south provinces, but even they have abandoned most of their old characteristics. The Negroes we have already spoken of. In addition to the pure-blooded blacks there are many mulattoes, of all shades, who call themselves *Brazilieros*, and, according to Mr. Johnston, from whom I derive these particulars, are very little inferior in capacity, physical strength, or intelligence to the pure race of Portuguese. Many of the Negroes—especially those not born in Brazil—are pervaded with a strong desire to return to Africa, a movement which is already making itself felt in a scarcity of labour in the vicinity of Rio and the provinces south of it, a scarcity which will no doubt increase as time goes on.

The Brazilians are in the habit of boasting of their resources—and they have a right to do so—but if, instead of talking so much of their dormant wealth they would set about developing it, the world would be more inclined to listen to them. Large sums have been sunk in attempts—almost always unsuccessful—in establishing colonies of foreign labourers in different parts of the empire.* These failures were owing, first, to the unsuitability of the districts selected for settlement, to the swindling promises of the touts employed to seduce unwary people out, to the mistake of planting these colonies at a distance from the consuming markets, to the absence of communication and transportation, Indian troubles, and to the

* The facts regarding these colonies I take from a report by Mr. Austen: "Consular Reports," 1876, pp. 760-794.

delay in the survey and settlement of the lands, which have in many instances prevented the colonists from obtaining their title-deeds to this day. There were other reasons which prevailed up to 1861. These were, that if the immigrants were not Roman Catholics they had no guarantee for their matrimonial contracts, and for the rights accruing therefrom to their offspring. If not a Catholic, the colonist, though born a Brazilian, could not become a deputy: to become so he had to abjure the creed of his parents. Some of these colonies are private ones, others are imperial, while a few are established by the aid of the different provinces, but as yet none of the schemes can be recommended. On the contrary, it would be only encouraging failure to counsel an inexperienced Englishman to settle in the rural districts of Brazil. The Portuguese, owing to their identity in religion, language, laws, and habits, and the similarity of race with the Brazilians, have been much more successful as settlers than the other Europeans. In Rio alone there are about 70,000 Portuguese. They do not confine themselves to agriculture, to which they are averse, but launch out into all branches of commerce, many of them making considerable fortunes, with which they return to the mother country, greatly to its benefit, morally and materially. The commercial operations with Portugal are to a great extent in the hands of the Brazilian Portuguese. "In communication," writes Mr. Austen, "with Lisbon, Oporto, and all the principal towns and villages in Portugal, they have banks and agencies on a scale exceeded only by the money-order offices in Great Britain and her colonies, and with their persevering industry, clannish proclivities, and frugal habits, they are the only foreigners who seem to amass fortunes in Brazil." Probably until the extinction of slave labour there will be little room for free men. The free man consumes twice what the slave does, and produces less. Accordingly, to establish an equilibrium between production and consumption, the free man must produce nearly double the quality, or the value of his production must be equivalent to that of two slaves. Even when the servile element is eliminated from Brazil, the white man will have little chance of competing with the ex-slave in the cultivation of some parts of the country. The conclusion of Mr. Acting-Consul Austen is, that Brazil requires population; nature is on so overwhelming a scale, that it dominates man, instead of man reducing it to his multifarious purposes and advantages. Such a population can only be obtained "by the introduction of civilised, industrious, intelligent, and physically endowed races, who will intermarry with the natives, and multiply and improve the race." It is, however, just possible that even to "develop the natural greatness of Brazil," "a civilised, industrious, intelligent, and physically endowed race" might not be inclined to make such a sacrifice!

CHAPTER XII.

THE REPUBLIC OF BOLIVIA.

JAMMED as it were between Brazil on the north and east, the River Plate Republics on the south, and Peru on the west, lies the Republic of Bolivia. Rudely triangular in shape, with its centre on the watershed between the Atlantic and the Pacific, drained on one side by the

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SCENE IN BOLIVIA (WITH DISTANT VIEW OF THE CITY OF SUCRE)

great tributaries of the Amazon and the Rio de la Plata, and on the other by the shallow half-hearted streams that fail to find their way to the sea from the western slopes of the Andes, it has scarcely any communication with the ocean, to whose waters it contributes so bounteously. On the east and south, Brazil, Uruguay, and the Argentine Republic bar the way to the Atlantic; and on the west, Peru and Chili occupy the seaboard, with the exception of a short break between La Chimba Bay and the Rio de Lon, which is apportioned to Bolivia. Yet this slip of sea-coast is of scarcely any value to the republic of the Andes, for it possesses not a port worthy of the name, and the streams which run through the district west of the mountains are miserable representatives of the noble rivers which, towards the north, unite to swell the flood of the Madeira, and in time the Amazon, and in the south in the shape of the Pilecomayo, Vermejo, and a score of other rivers, to give strength to the Parana, and its outlet the Rio de Plata, nearly 2,000 miles to the south.

THE GEOGRAPHY OF BOLIVIA.

With the centre of the country almost on the crest of the Andes or its spurs, Bolivia is essentially a mountainous country, though towards the east it gradually gets flatter and flatter until it shares in the plains of Southern Brazil, Uruguay, and Argentina. Geographically, Bolivia is really a portion of Brazil, or of the River Plate valley, to which vice-royalty indeed, under the Spanish Government, it belongs. The department of Atacama on the Pacific, is, however, topographically a part of both Chili and Peru. It is an arid tract, full of volcanoes, and so badly watered, that the mules conveying freight from the little port of Cobija to the interior often suffer much from thirst. Hence, though great privileges are accorded to it in order to encourage merchants to import goods by this route, most of them prefer to use the ports of Peru rather than incur the hardships of this sterile region. As a natural result, it is almost without inhabitants, except in the spots where the guano and nitrate of soda deposits are found; and of late years the discovery of the rich silver mines of Caracoles have attracted a considerable population to that part of the region. These mines are from 10,000 to 15,000 feet above the level of the sea, and hence in a region comparatively healthy. The western department of Bolivia is an extensive plateau, with numerous valleys, the climate and products of which vary according to the elevation, though as a rule they are more remarkable for their mineral riches than for their vegetable products, a coarse grass on which the llamas feed being the most marked feature in that department. The lower elevation to the east is the great grain-producing region of Bolivia, and probably owing to the fact of mining not being attended to, woollen and cotton manufactories have attained some degree of perfection. From thence eastward the country gets lower and lower, its climate changing with every degree of longitude, until in the lowlands a tropical temperature and tropical products appear. In Chuquisaca, a part of which lies in the elevated regions, there are found all the products of temperate regions, as well as rice and vines, while cattle and horses, which cannot live in the Upper Andes, flourish; and as the tributaries of the Paraguay are approached, forests of fine timber cover great portions of this department and the neighbouring one of Tarija. The lowlands of the east yield tropical crops and products, and interspersed with much pasture-land, possess considerable forests containing valuable

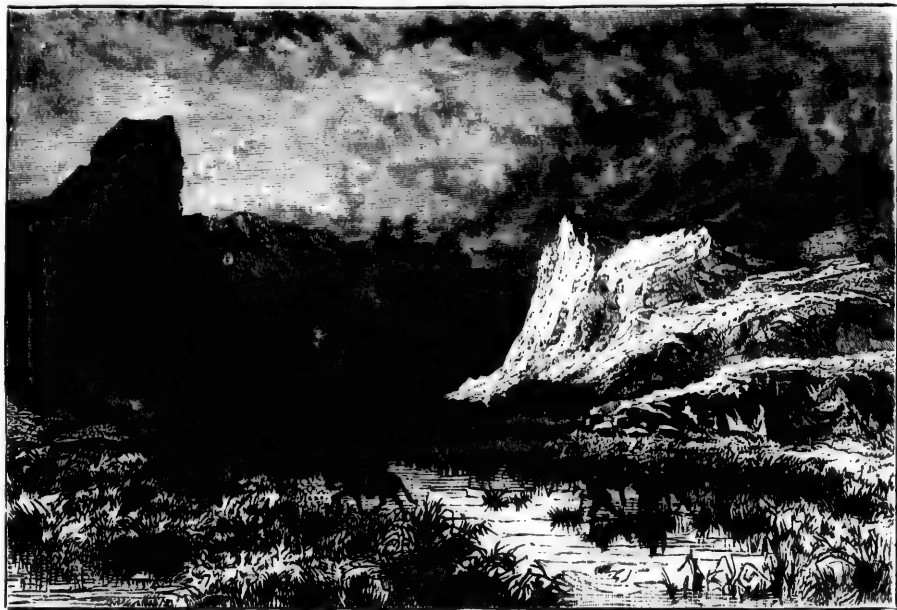
timber, though as a rule the climate is damp, hot, and, when there are swamps, very unhealthy.

The central mountain barrier of Bolivia is usually described as the Andes. In reality, however, there are four distinct ranges forming its highest lands, more or less separated from each other by valleys and plateaux. It is in the Cordillera Real, or central system, not in the Low Andes, that the highest peaks are found. These, high up amid eternal ice and snow, are Illimani, 19,926; * and Sorata, 24,800; though in the Andes the volcano of Sahama is reported to be 23,000, and in the other ranges there are peaks from 15,000 to 17,000 feet high, the snow-line in the highlands of Bolivia being between 16,000 to 18,000 feet above the sea-level. These high plains, or basins, have a water system of their own. The rivers never reach the ocean, terminating in lakes, in swamps, or in arid, glistening salt-fields, the rapid evaporation, as happens in the similar case of the Central North American lakes in Utah and Nevada, balancing the supply of water flowing into them from the melting snows of the surrounding mountains. The highest of these table-lands—the highest in the world except that of Tibet—is the one in which Lake Titicaca (pp. 181, 185, &c.), and its feeder the Rio Desaguadero, are situated. Here is also one of the chief seats of the present Bolivian people, just as in former and happier days it was the home of the ancient Inca race. Titicaca, one of the largest islands in the lake, a familiar tradition assigns as the home of the Manco Capac, and his wife Manco Cello Huaco,† the founder of the ancient Inca empire, and thence the spot from where spread the light and civilisation which, until the Spanish trampled on this New World culture, illumined the surrounding regions of Bolivia, Peru, and Ecuador. This subject we may have by-and-by to discuss in outline. Meantime, it is enough to say that I agree with the greatest of all the modern European authorities on the Inca, or Ynca empire, Mr. Clements Markham, in thinking that there is no proof for such a theory, and that in all likelihood they were the aboriginal inhabitants of the country round Cuzco, in Peru. Their empire was a wide one, the Inca regions alone extending from the water partings between the basin of the Huallaga and Ucayali at Cerro Pasco, to that between the basins of the Ucayali and Lake Titicaca, at the basin of the former peak of Velcañota, a distance of 380 miles. This country comprises every variety of climate, allowing of the products of every zone to be collected on one side, while the difficulties which nature has thrown in the way only succeeded in stimulating the mind of this ancient civilised race, as it usually does, with greater vigour in the effort to overcome them. But the Inca empire was a much wider one than that comprised within the boundaries of one tribe. Six aboriginal nations united to give it strength—the Incas, the Canas, the Quichuas, the Clancas, the Huanacas, and the Ruancas. These people, taking them as one, inhabited a strip of mountain and coast-line, bounded on the east by the forest-covered plains of the Amazonian basin, and extending north and south upwards of 1,500 miles, from 2° N. to about 20° S., with an average breadth between the sea-shore and the Amazonian basins of 400 miles. "This vast track," writes Mr. Markham, "comprises every variety of climate, and contains within its limits most prolific tropical forests, valleys with the climate of Italy, a coast region resembling Sind, or Egypt,

* This was ascended by Prof. Karl Wiener. The south-eastern mount called Paris Peak he found to measure 6,131 metres above the sea. One ascent was made from Catana. (*Berlin Post*, April 3, 1878.)

† "Races of Mankind," Vol. II., p. 313.

temperate hill-sides and plateaux, bleak and chilling pasture-lands, and lofty peaks and ridges within the limits of eternal snow. On one mountain-side the eye may embrace at a single glance, sugar-cane and bananas under cultivation; in the lowest zone, waving fields of maize; a little higher up, shaded by tall trees, orchards of tropical fruits, stretches of wheat and barley, steep slopes clothed with potatoes and quinoa, bleak pastures where llamas and alpacas are browsing, and rocky pinnacles of snow."* Titicaca, or Chuquito, is—the Inca myth aside—a remarkable enough lake. It is 12,600 feet above the sea, has a maximum depth of 700 feet, and an area of 3,220 square miles—that is, equal to fourteen



VIEW ON THE RIO BLANCO, BOLIVIA.

lakes of Geneva (Johnston). The borders are surrounded by a rich and fertile country, which supports numerous towns, and were communication better, might be still more thoroughly populated. Some of the Bolivian scenery, especially that in the vicinity of this lake, we have engraved on pp. 172, 173, 177, 181, 184, and 185. These views will give a better idea of the places pictured than any mere verbal descriptions. Bolivia, though naturally a part of the empire of the Incas, and therefore, properly speaking, a country of the Pacific slope, is yet, geographically, a part of the Atlantic region, and for all the good its inlet from the Pacific, through the desert of Atacama, does for it, it might as well possess no seaboard. From the Atlantic, Bolivia must always receive its supplies.

* "On the Geographical Positions of the Tribes forming the Empire of the Yncas." (*Journal of the Royal Geographical Society*, Vol. XLI., pp. 281—338), and Map (*Ibid.*, Vol. XLII., p. 513), with references.

Hitherto, however, the feasibility of opening up navigation from the Paraguay to Eastern Bolivia has fallen through from reasons not difficult to imagine. The Amazons have in like manner, owing to the eighteen rapids of the River Madeira, forming a barrier of 230 miles, not yet been made practicable, though the question of constructing a railway around them has been often mooted, and even got as far as the inevitable loan. The Purús, another important navigable tributary of the Amazon, has been proposed to be utilised. Chandler explored it for



VIEW OF TIAHUANACU, NEAR LAKE TITICACA, BOLIVIA.

1,886 miles, and it may be said to be navigable in light draught steamers as far as Curiemaha, a little stream 1,648 miles from the Amazon. Its branches will probably add 800 miles more of navigable water to the parent river. The Aquiri, which enters the Purús 1,104 miles from the Amazon, is reported to be a river as wide, but not so deep, as the Purús.*

The roads in Bolivia are merely mule or llama tracks. Once the Incas made fine highways, but through carelessness, greed, or laziness, they have been allowed to fall into disrepair, until, at the present time, the road which connects Sucre, Santa Cruz,

* Church: *Geographical Magazine*, April, 1877; Chandler: *Journal of the Royal Geographical Society*, 1866.

Mojos, and Chiquitos with the plains of Beni and Madeira, is about the only one worthy of the name, that from Potosi to Jujuy, in the Argentine Republic, being a remarkably poor work of art. Railroads have only begun to be built. There is a small line from the Bay of Antofagasta, on the Pacific, to the nitrate of soda deposits of Salar del Carmen. This it is proposed to extend. Another connects La Paz with Aygacha on Lake Titicaca. At present, Bolivia chiefly communicates with the world by way of the Peruvian port of Mollendo and Arequipa, from which runs a railway to Lake Titicaca; this lake is again crossed to the Bolivian side by means of steamers.

CLIMATE.

In a country of such varied elevations, it necessarily follows that the climates are many. Indeed, the traveller descending from the highest elevations to the lowest, passes from the Arctic region to the tropics in the space of a few hours, and witnesses the growth of all products, from those of Greenland, to those which popular imagination more especially connects with the latitudes we are now in. The elevations above 11,000 feet are known as the *Puna*, and the *Puna* (or *Cordillera*) *brava*. They are bleak lands, thinly inhabited, and, indeed, on their highest points, are almost solely left to vicuña, llama, alpaca, viscacha, chinchilla, and other animals, in addition to the condor and various birds of prey. The vegetation consists of mosses and hardy grass. Lower down—on the *Puna*—the climate is milder. Here men can live and grow potatoes, barley, and coarse grass, on which flocks of sheep, llamas, and vicuñas feed. Yet, notwithstanding the chilly air, in the elevated plains several species of cactus grow, one of them, the *Cactus Peruvianus*, attaining a height of from 20 to 40 feet. Still lower down, in the temperate region known as *Cabezera de Valle*—between 9,500 and 11,000 feet above the sea—wheat, maize, oranges, vines, and similar crops flourish, while still lower—in the *Valle*, or *Medio Yunga*—the crops of a mild, sub-tropical climate appear. Finally, in the *Yunga*, which is the name applied to all the country below 5,000 feet of elevation, the fruits, and other products of the tropics, grow in the greatest luxuriance. Travelling in the highest elevations is dangerous, not only from the cold blasts of air which sweep over them, but from the sudden storms which often overwhelm the exposed wayfarer. In the lower regions, however, the climate is delightful. There are rarely night frosts, and to the delighted eye of the dweller, either in the *Punas* or in the lowest regions, a perpetual spring seems to prevail in the *Valle* and the Higher *Yunga*. No rain—or next to none—falls on the western side of the Andes; hence a great portion of the country is a desert. But in Eastern Bolivia rain falls with more or less regularity, often accompanied by thunderstorms, and, in the higher regions, hail and snow take its place. The climate of Potosi is very irregular. "During the night and early part of the morning it is piercingly cold: in the forenoon it resembles our fine weather in March. In the afternoon the rays of the sun, in so pure and attenuated an atmosphere, are very powerful, and scorchingly hot; while towards evening the air usually becomes mild and serene. Strangers, on first arriving in these higher plains, are usually affected with difficulty of breathing, owing to the extreme rarity of the atmosphere; they are likewise sufferers

from dysentery, which, however, for the most part soon disappears, and, in general, the highlands are by no means unhealthy." So much for Mr. Keith Johnston. However, much doubt has of late been cast upon the supposed effect of rarefied air in causing difficulty in breathing, surveyors having pitched their camps on the Himalayas at much higher elevations without experiencing any of the supposed inconveniences of the situation.* It is possible, therefore, that fatigue has much to do with the exhaustion, more especially as balloonists, at quite as great heights, have not complained of any difficulty in breathing. Saussure was the first to originate this statement, but since the day of the first climber of Mont Blanc we have learned a good deal, and accordingly those athletic people whose pride it is to climb mountains are rather inclined to rebel against the old conventional ideas about rarefied atmosphere, difficult breathing, and the rest of it. Captain Musters, when travelling within the zone of the Cordillera Brava, was often struck with the resemblance of the surrounding scenery to the lofty plateaux of Patagonia. The same tufted grass and coarse shrubs formed the vegetation, whilst, to make the resemblance still stronger, guanacos, pumas, ostriches, and armadillos were observed: it only wanted the smoke from the Indian hunting fires to complete the illusion, which was powerfully aided by the cutting blasts which forcibly recalled the cold of the Southern Pampas. Travelling in Peru is thus, if varied and interesting, very trying to the constitution. The alternation from hot to cold brings on certain fever, and the almost as great torments of mosquitoes, vinchucas, sand-flies, &c. The cutting wind from the icy peaks of the Andes chills him in the morning, while at midday he is scorched by the sun, which hardly permits of ordinary clothing being worn, though, if he is not careful, before a few hours go by, he may be frozen by a cold ranging near zero, or overtaken by a heavy snow shower. He is fortunate if, on arriving at a miserable post-house, he can get a few eggs and a dish of "Chupe" to warm his starved body and allay the cravings of an appetite whetted by the keen mountain air. It is, indeed, often difficult to obtain provisions, and they must be taken without consulting the owners, who can be paid for them afterwards—yet, probably, for the very reason that property is so very exposed, highway robbery is very rare, and even trains of silver will march over the mountains without escort, and yet be unmolested. "There are," writes Captain Musters, "many roads in Bolivia where are changes from 'valley,' or tropical, to frigid, certainly, in one day's march: it is sufficient to cite the road from Oruro, *via* Arque, to Capinota, as an instance. Leaving Oruro, and traversing the intermediate plain, the road passes over the High Cordillera of Tapacari at an elevation of 14,500 feet, and gradually descends, winding down the sides of a long ravine. Little by little, shrubs, at first stunted then larger, grow by the side of the mule track, then a patch of barley or potatoes for a mile or two; then high, flowering shrubs, celbo, and other trees appear; until, at length, on turning a corner, Arque is seen in the distance, nestling amongst orange, fig, and other trees, surrounded by maize plantations. A league or two farther down the same ravine, bananas and other tropical trees come in sight, and, should the traveller follow the

* Herr von Thielmann, in his ascent of Cotopaxi—over 19,000 feet—experienced, according to his own account, no suffering on the summit except "from too much appetite." This must have been an exceptional case, as the facts about the Zoroche, to be presently related, prove.

course of the stream, a couple of hours' ride will bring him to an intensely tropical valley, where sugar-cane, &c., are cultivated." Travel still farther across the desert of Atacama, and another climate still will be experienced. Here the temperature is also changeable. At the nitrate works of Las Salinas—owing, perhaps, to the very dry atmosphere, and to the ground being covered with salts, which cause a very rapid radiation of the heat at night—the difference in the temperature within a few hours is very remarkable. For instance, a minimum shade temperature of 7° Fahr. has been registered at seven a.m., in the winter, and at eleven o'clock in the same day, 98° in the shade, being a rise of 91° in four hours. In summer, the shade-temperature ranges between 40° at night, and 130° in the day. Frequently the temperature of the ground at one p.m. is 145° Fahr. The air is so dry, that a piece of thick note-paper, if folded and pressed with a paper knife, will break in two when folded out. Yet there are evidences to show that violent rainstorms have taken place, and that the rain, having nothing to absorb it, has rushed off in terrific torrents down the steep slopes of the mountains, rolling boulders, weighing many tons, in their course. It is now impossible to say where these storms have occurred, and how often, though the probabilities are that they are very local occurrences, and do not visit this arid country oftener than once in several hundred years. One such storm happened near Pau de Azucar, in Chili, about thirty years ago, when the torrent was so great as to sweep away some heaps of copper ore, a blacksmith's forge, some carts, and one woman. Although the storm only lasted a few hours, and the place was some seven miles from the sea, there was never a trace of the victims—animate or inanimate—found. It is, however, scarcely accurate to say—as is generally done—that *no* rain falls in this desert of Atacama. Near the coast there are usually two or three slight showers during the winter, but seldom enough to wet the surface of the ground. The wind is almost invariably a gentle sea-breeze by day, and a land-breeze by night. There are traces of old lakes in this section, now only dry valleys. South of the River Loa there is no fresh water, so that all the water required both for men and animals has to be distilled from the sea, or from water obtained in wells. Even that used in the locomotive engines of the railway company is distilled from the sea in Antofagasta, and carried all the way—eighty miles—to Las Salinas for the double journey. Until the discovery of the nitrate deposits, some ten years ago, this part of the desert, the town of Cobija, now officially called Puerto de la Mar excepted, was unpeopled.* To return to the higher elevation, the "Altaplanicie," or table-land, and the Punas. In the higher elevations *surumpi*, or snowblindness, is frequent, and in some cases has proved fatal to the belated traveller. In the Indian villages of the Punas an infectious fever—the "febre amarilla"—decimates the population, while coughs and other chest diseases are common on the Puna, and even far down to the Valle and Yunga districts. It cannot, however, be denied—all wholesome scepticism on the subject notwithstanding—that many people at these elevations suffer from giddiness and vomiting. Indeed, so familiar is this sickness to the inhabitants, that they know it as the "Puna," or Zoroche, and have a well-established treatment for it. When attacked, they at once cease walking; if on foot, sit down, if on horse or muleback, dismount. The Indians usually

* Harding: *Journal of the Royal Geographical Society*, Vol. XLVII. (1877), pp. 250—253.

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RUINS OF INCA MONUMENTS IN THE ENVIRONS OF TIAHUANACU, SOUTH OF LAKE TITICACA, BOLIVIA.

recommend the sick man to eat snow, but the smelling of ammonia or garlic is the usual remedy adopted. Cases have been known to prove fatal through persons not stopping when they felt the symptoms. Not only is man liable to the sickness, but mules, and other beasts of burden, suffer severely at times, and many die. It is said that those ascending from the eastern side are less subject to the sickness, probably owing to the fact that the change from low to high elevations is less rapid than on the western slope. In the higher parts of Bolivia—for instance near Sucre—Captain Musters, from whose notes we have derived some of the preceding information, describes the seasons as being very marked. Rain falls during the summer months, namely, October, November, January, February, and March, whilst, during the remainder, dry, clear weather prevails, accompanied by strong winds in the months of August and September. At the break-up of the seasons heavy thunderstorms occur, and not a year passes without persons or houses being struck by lightning. This division of the seasons does not, however, apply to the Santa Cruz de la Sierra, and the lowlands, through which the Beni and other tributaries of the Amazon find their way. Here rain generally falls capriciously all the year round.*

HISTORY.

Having now gained some general ideas of Bolivia and its climate, let us, before proceeding further, glance briefly at its history. The history of the Bolivian Republic is, in its earliest period, that of Peru. Indeed, at one time it was called Upper Peru, and is yet, though shut off from the Pacific by want of the water-ways which unite it with the Atlantic, the highlands of that country. The tale of the Incas and their wrongs—so far as it is necessary to understand the development of Peru—will be considered by-and-by. The abominable injustice to which the native population was subjected by the mita—the forced labour on farms, in factories, and in mines—the tribute—the iniquitous working of the law of repartamiento—and other wrongs, at last culminated in a revolt of the native population under the Inca Tupac Amaric. This was in 1780–81. After spreading terror and destruction throughout the country—we are at present speaking solely of that portion afterwards known as Bolivia—the “rebels” were defeated, and their leader put to death with the most hideous tortures. He was the last of the Incas, or, at least, the last who dared to assert the liberties of his people. The natives never afterwards attempted insurrection, but doggedly endured the evils which they could not avert. They lost spirit, and even a desire for better things, and when their old masters rose, and in their turn attempted to shake off the yoke of the Spaniards, the Indians looked apathetically on, careless who won, believing that in the victor in any case they would have a master. At first the war of independence was carried on by Bolivia in connection with Peru and the River Plate provinces. This warfare went on—with few intervals—from 1809 to 1825, during which period success was sometimes with the Spaniards, at other times with the “patriots,” more frequently, however, with the former, who were better equipped and disciplined than the rebel colonists. It would be a wearisome task to

* Musters: *Journal of the Royal Geographical Society*, Vol. XLVII (1877), pp. 201–216.

relate all the ups and downs of the civil war. Suffice it to say, that in 1824 a great battle was fought at Ayacucho, in Peru, and immediately after General Sucre marched with his army into Upper Peru. The result was a universal rising of the "patriots," and the capture, or capitulation, of the chief towns. Even the Royalist troops revolted, and joined the rebels to such an extent, that, in August, 1825, Upper Peru was declared an independent republic, and soon after, in honour of the Liberator, Bolivar, received the name it now bears. Its subsequent history has not been more favourable than that of the other Spanish republics. Civil war has been almost continuous. Rarely has a President been allowed to serve the full term for which he was elected, and, indeed, of late years the form of election has not been gone through, the favourite for the time being of the soldiery being declared President, and kept in office by the same means through which he was installed—that is to say, until his masters choose to replace him by another hero of the hour. Their intestine troubles have been varied by foreign "wars" with Chili and Peru, from which the republic emerged crippled and disorganised for civil government. Moreover, Glory, though a pretty bauble, is rather unnutritious as an article of diet: it does not do for a regular meal. Accordingly, of late years, the Bolivians have been repenting of their evil ways, and show signs of growing tired of their everlasting playing at soldiers, revolutionisers, and war. The result is that civilian government has taken the place of the military despotism under which they have lived for so long. There can, however, not be a great deal of hope for a country with an army of 2,000 men, "led" by 1,020 officers. These dogs of war must be fed, a necessity evinced by the fact that the present President, General Hilarion Daza, succeeded Dr. Frias—the inaugurator of the new order of things—by the summary process of election by bayonet. The capital has been about as shifting as the Executive. At one time it was La Paz; then it was transferred to the fortified town of Oruro, and at present it is at Sucre, that is to say, when the Government is not forced, for safety's sake, to flee to some more secure quarters.

THE GOVERNMENT AND THE PEOPLE.

The exact area of Bolivia is very uncertain, its boundaries in the direction of Brazil being still somewhat unsettled. As near as need be it may be given at 536,200 English square miles, though in some statistical works its compass is estimated at very much more. There are nine departments—La Paz de Ayacucho, Potosi, Oruro, Sucre (or Chuquisaca), Cochabamba, Beni, Santa Cruz de la Sierra, Tarija, and Atacama, with a population estimated at 2,526,000, the first-mentioned department being the most thickly populated, the latter the thinnest, as might be expected. Two-thirds of the population live in the country districts, and the remaining third in the cities or towns. Two new provinces—Malgareja and Mexillones—were decreed in 1866 and 1867, but at present they seem in a most embryonic condition, for we have been unable to gain any intelligence of their position and prospects. The wild Indians of Peru have been variously estimated as numbering from 24,000 to 700,000, the one estimate being as obviously too small as the other is too large. Perhaps 250,000 would be nearer the mark. In the valleys there is a large admixture of negro blood among the Indians, while in the temperate regions the Quichuas, and in the frigid Punas,

the Aimarás predominate. As a general rule it may be laid down that the first inhabit the south of the republic, and the latter the north. The Atacamenos—who speak a now fast-dying language—inhabit the Atacama desert. The Indians occupy themselves greatly as muleteers in the carrying trade between Potosí and Calama, or in driving llama trains, and may also be met with in the desert crossing to the sea with loads of various kinds. In some parts of this region so great are the quantities of mules which pass along, and so arid is the climate, that the track is covered with bones, and appropriately known as *Sepulturas*, or “the Tombs.” For several miles, we are told by a traveller, the path is bordered with bones of mules, donkeys, and horses that had died where they had fallen. The animals were principally cargo mules which were badly fed, and had to work very hard indeed. So scarce is provender, that each animal’s nightly ration of dried lucern or barley costs about 2½ dollars, or ten shillings. Captain Musters describes the Quichuas and Aimarás as having many habits in common. They are both fanatical and superstitious, wear ponchos—loose blanket capes—and coarse woollen clothes, and masticate the coca leaf in order to gain strength, or, at least, a temporary stimulus. “In all the highest points of the passes, and wherever a murder has been committed, heaps of stones called ‘apachetas’—a word derived from the ancient goddess, Pachac Camac—are placed, and each Indian who passes spits out his juice of coca leaf, and adds another stone, as a sort of offering to the deity or spirit. The two races differ in language and disposition: the Quichua is a humble, civil, if not servile, individual, who drinks his chicha, and beats his wife, in peace and quietness, but the Aimarás are more independent, insolent, and bloodthirsty; and these latter are much addicted to the use of ardent spirits. Whilst on this subject, it might be worth while to mention that in no other country did I witness so much drunkenness among the lower classes, both Indians and half-breeds, especially the latter. I rarely arrived at a small town, or mine, without finding the greater part of the population the worse for liquor. The Indians are small and slender in *physique*, but are active, and capable of enduring great fatigue, especially in long journeys. They are, when sober, a hard-working race, and either bury their earnings, or spend them in religious feasts, which are always an excuse for a debauch. The Quichua Indians, not situated on the highways, I found to be very civil and hospitable, especially when made aware that I was a foreigner. They, as well as the Aimarás, are divided into two classes, Hacienda, or Estate Indians, who rent land, and are subject to work a certain number of days for private persons of their landlords, and Comunidades, or Indians in communities, who have to pay tribute to the Government from whom they hold their land, which they work in common. These Indians appoint their own alcalde, or magistrate, who regulates the partition of crops, or other questions. In some of these communities there are still some curious customs, and I believe that the Quipos, or language of knots, is still understood. For instance, the Indians in the community situated near Puna, province of Potosí, when a young couple are married, all subscribe something to assist the newly-wedded couple. For the greater part of the cultivation in Bolivia irrigation is necessary, and the Indians are very dexterous in constructing acequias, or aqueducts, for this purpose. They are very reticent regarding their traditions, also as to showing mines, although undoubtedly possessed of the secret of many rich mineral deposits.” To these remarks

of Captain Musters we may add that in addition to the native tribes there are, in Bolivia, a good many Guaranis from the Paraguay region, who have crossed the mountains and settled in the plains. They are said to be—especially the women—more industrious than either the Quichuas and Aimas (or Inca Indians), and scarcely so much given to strong waters. There are also in Eastern Bolivia many nomadic or wild Indians belonging to various tribes, who make raiding excursions into the Argentine Republic, plundering



OLD INDIAN TOMBS ON THE ISLAND OF SURICA, LAKE TITICACA, BOLIVIA.

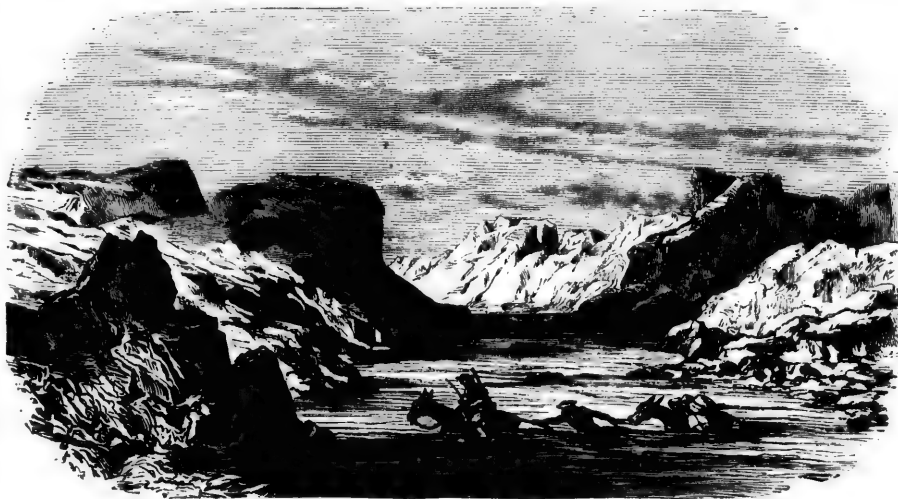
villages of cattle, women, or any other portable property. They hold in great contempt the civilised Indians, who in their turn share all the white man's antipathy for their savage brethren. The stationary Indians live chiefly on maize and potatoes, and prepare their own intoxicating drink (*chicha*) from the grain of the former plant. They also breed goats, llamas, and sheep, and farm in a rude fashion, albeit some of them are wealthy, while many others could be so, had they any ambition beyond supplying the needs of the hour. In 1866 a fever raged among the native population, and some parts of the Altaplanicie have not yet recovered from it. Strangely enough, none except the Indians were attacked by it, though it is well known that the aborigines used every possible means in their power to convey

the contagion to the whites. As in most South American countries there is also a considerable number of Zambos, mulattoes, and *cholos*, or descendants of the Spaniards and Inca Indians. These latter in many respects resemble their fathers, and occupy themselves in carpentering, tailoring, silver-smithing, trade, and mining. They all are, as a rule, turbulent, immoral, drunken, and improvident, but without them Peru would never have attained its independence. The Indians, like the rest of the people, are for the most part ostensibly Roman Catholics. Education has not, however, made much advance among them, nor is the Republic yet thoroughly permeated with the necessity of this. Still, since the country has attained its independence, many of the rich revenues of the convents and other religious establishments have been diverted for the purposes of the higher education. At Sucre has been long a university, and in Potosi—as becomes so great a mining centre—there is an excellent school of mineralogy. The chief cities are situated on the eastern Cordillera. There are in the south—Sucre (p. 169), Potosi, Cinti, Tupiza, and Tarija; in the north—La Paz, Cochabamba, and Oruro. Santa Cruz de la Sierra is more to the east in the Lowlands. Sucre, the capital, was named after General Sucre, who did so much to gain for Bolivia its independence, though it commonly retains its ancient name of Chuquisaca, signifying, in the Aimara language, “the gold bridge.” The town owes, if not its origin, at least a great measure of its prosperity, to the fact that the miners of Potosi use it as a place of refuge during the winter, when Potosi becomes insupportably cold. In Sucre are the residences of the Archbishop, the Supreme Court of Justice, and the President, and the place of meeting of Congress, and in Sucre is the great religious sight of Bolivia, namely, “Nuestra Señora de Guadalupe,” in other words, an image of the Virgin Mary, gaudy with gold, pearls, and precious stones, valued at two million of dollars. The cathedral also contains some fine plate, and some good religious paintings, though whether they are, as popularly affirmed, the work of Murillo, may be doubted. The Sucreanos are better mannered, more aristocratic in their ideas, better dressed, and speak purer Spanish than the people in any other part of the Republic, and, indeed, in Captain Musters’ opinion, than in most of the South American towns. At balls the ladies of Sucre turn out in remarkably good taste, albeit most of them make their own dresses, as there are no milliners in the town. With the exception of two or three wealthy mine-owners, and the Government officials, the men are usually engaged in commerce. Foreigners, or descendants of foreigners—generally Frenchmen, Spaniards, or Basques—are among the richest merchants of the city. Amusements there are almost none. Now and then a theatrical performance takes place in an old church turned into a theatre, or a bull-baiting comes off in the Plaza, boarded round. When the President is in the capital the regimental bands play in the evenings, but so intermarried are the people, and so strict the rules of mourning, that the death of any leading member of “society” often puts an end to some proposed gaiety. The ladies pass much of their time in church, and the men in visiting, or playing an old-fashioned game of cards called *rocambur* or *quadriilli*. At the last bull-baiting before Captain Musters’ visit, several half-breeds and Indians who had imbibed Dutch courage were goaded to death “amidst the acclamations of the spectators.” Altogether Sucre is neither a very moral nor a very refined city. It is a proverb throughout Bolivia that revolutions consist in Sucre “of shouting, and in other parts of shooting.” Easter week

is the great time of the year for cock-fighting, drinking, playing fives, fighting with slings and stones, "and one or two other games." The climate is temperate, and being near the Valle, the market is well supplied with all kinds of fruits, as well as vegetables from the immediate neighbourhood. According to Ondarza there are in Sucre about 24,000 inhabitants. Potosi, fifty miles to the south, and situated at 4,200 feet greater elevation than the capital, is the most famous place in all Brazil. The very name has become synonymous with untold wealth, for in its cerro, or mountain, 15,977 feet above the sea, are, next to those of Guanaxuato, in Mexico, the greatest silver mines in the world. Silver is also found in a neighbouring mountain, but it is from the great cerro that it is chiefly dug, as it has been for three hundred years, an Indian having accidentally discovered the rich deposit in 1545. The mines now extend to within 125 feet of its summit, and are believed to be practically unexhaustible. Cortes estimated Potosi to have produced upwards of £236,000,000. The town, including the suburbs, is at present inhabited by a population of less than 23,000, though in its palmy days it boasted to have contained within its walls 175,000 eager searchers after wealth. In the mountain are the openings of 5,000 mines, though most of them are now abandoned. From the latest accounts some twenty-two companies are working forty-seven mines, and bring to the surface about one million dollars worth of ore annually. Potosi has suffered, perhaps, more than any other town in Bolivia from civil war, and the suburbs are now a mere mass of ruins. The great reservoirs for supplying the citizens with water, and the stamping mills with power, still stand to attest the former greatness of Potosi. It is said that the works cost the Spaniards 3,000,000 of dollars. The mint occupies an entire block of the city. Its timber was dragged by oxen from the far distant woods of Tucumanu, and the whole building cost in 1562 over a million of dollars. Yet this mint, worked by steam power, is out of order, and the Government, though quite able to find funds to "equip and clothe a mob of soldiers who serve merely for theatrical show and for the intimidation of those who object to the present rules," has not, according to Musters, sufficient funds to put it to rights. As a result Bolivia, which has mines of surpassing riches, has no good sterling coin within its boundaries.

Centi is a small town, chiefly remarkable for its vineyards, which supply the whole of the south of the Republic with wine. In Tupiza are rich vines, and in the vicinity of the latter fine tobacco plantations and profuse vegetation generally. Tarija (5,680 people) is chiefly known on account of the bones of extinct animals discovered near it. Both are closely connected by mercantile relations with the neighbouring Argentine Republic, on the pampas of which have been discovered those great accumulations of the bones of extinct animals which, in geological times, roamed over these plains. Santa Cruz de la Sierra is a town of about 10,000 people in the tropical part of Bolivia, and famous for its coffee, tobacco, sugar, and other products common to the hot climate which the neighbouring country enjoys. The political atmosphere is also tolerably warm, the Santa Crucians being addicted to revolution. The most thriving of the Bolivian towns are, however, situated in the northern part of the country. The population of La Paz consists of, according to the latest census, 76,372 souls, chiefly Indians and half-breeds of the Aimara race. Owing to its vicinity to Lake Titicaca and its communication with the outer world by the Puna and Mollendo Railway, and by steam

and coach, it is the city best known to foreigners, and the only one in Bolivia which is steadily advancing. Here resort the Cascarillos, or gatherers of Peruvian bark, in order to sell the produce of their labours on the eastern slopes of the Cordilleras, and to La Paz come the Chilians and Peruvians suffering from consumption. Hence La Paz has several hotels, baths, and public walks. A still better climate is that of Cochabamba, a town of 41,000 people, lying at an elevation of 8,000 feet to the south-east of La Paz. The inhabitants are chiefly Quichian half-breeds, industrious, prosperous, but, contrary to the popular view of the antecedents of such people, neither honest nor sober. Oruro, a town of 8,000 people, is chiefly remarkable for its rich mines, though revolution and civil war have so seriously



CROSSING THE RIVER ESCOMA, BOLIVIA.

affected it that the place is now greatly fallen from its former prosperity. Trinidad, a town of 4,200 people, and Cobija, the free port already mentioned, are the only other towns in Bolivia worthy of the name. All the places at a greater elevation are more or less healthy, though in the very elevated positions, like Potosi, children are generally born dead or blind, proving that such lofty homes are not suitable for the human race.*

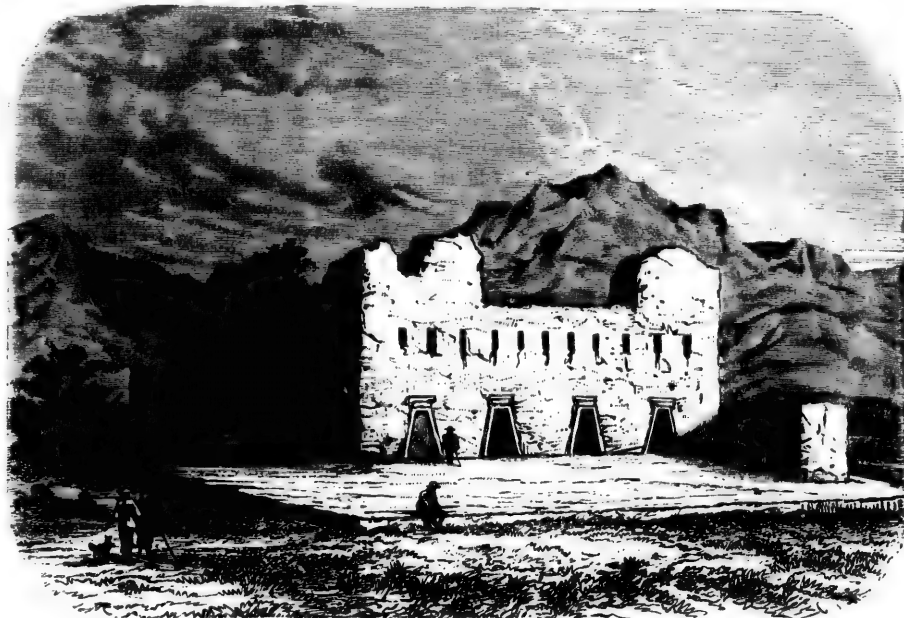
What the actual revenue and expenditure of Bolivia is we cannot tell for certain, as for several years past there have been no returns made. In 1873-74, the Budget was calculated at 2,929,574 bolovianos—a coin worth at present about 3s. 3d.—and the expenditure at 4,505,504 bolovianos. This leaves a large deficit. Export and import duties, a land-tax levied on the Indian population, and the proceeds of mines, the sale of guano, and other State property, constitute the source of revenue. There are, as in most Spanish-American countries, no direct taxes. Up to a comparatively recent period Bolivia kept out of debt. But at latest date she was reported owing £3,400,000, including £1,700,000 of the loan which she

* * * * Musters: *lib. cit.*, pp. 212-214.

contracted for building railways in 1871. The project of connecting the Republic with the Atlantic Ocean was, however, never carried out, though in its place the Republic has a plentiful crop of English lawsuits.

PRODUCTS AND COMMERCE.

A country with a surface so varied, and comprising so many climates, must possess an immense variety of products. Its mines claim the first place. Gold is found all throughout



VIEW OF A TEMPLE OF THE SUN, ON THE ISLAND OF TITICACA, BOLIVIA.

the Republic, chiefly mixed with antimony, silver, and other substances, and hence, owing to the difficulty and expense of extracting it by means of amalgamation with quicksilver, it is not collected to the extent which the renown of the diggings would seem to deserve. The *lavaderos*, or gold workings in the beds of the streams, yield, however, most of the gold collected in Bolivia. Those of Tipuani, where the metal is found in the shape of *pepitas*, or grains, at a depth of thirty or forty feet, embedded in a stratum of clay, were worked in the time of the Incas, whose tools are sometimes yet found embedded in the soil. In the province of Ayopaya are quartz veins, which, with *lavaderos*, yielded up to 1847, when they began to fail, £8,000,000, and many other parts of the country contain the precious metal in greater or less abundance, though some of the places where gold was dug in old times are now abandoned. Doubtless numerous mines will yet be discovered. For instance,

the great mountain of Illimani is believed to be rich in the metal, the shores of the lake at its base containing considerable quantities in a fine state of subdivision. In the seventeenth century there was found, not far from the city of La Paz, a nugget worth 11,269 dollars. It was believed to have been detached from the mountain by lightning, and is now—or was lately—in the Madrid Museum. Throughout all this region there must be enormous deposits of gold, judging not only from the quantities which have been extracted since the conquest of the country by the Spaniards, but from the incredible amount which the Incas possessed in their treasuries, and lavished on the ornamentation of their houses, or even on the manufacture of the commonest domestic utensils. There is a tradition that the gold workers of the district of Caralza—probably one of the richest auriferous deposits in the world, and certainly on the Andes—"sent 'a lump of gold' to the King of Spain the size and shape of a bullock's tongue, which was lost at sea; but in a little while they sent another piece the size of a bull's head, which arrived safely."* It is, however, the silver mines of Bolivia which have given that country its celebrity in the rest of the world, and has caused populous towns to be built at elevations and in situations where man would otherwise never have thought of taking up his residence. To this "*argenti sacra*"—or excreta—"fames" Potosi, whose riches we have already spoken about, owes its existence. But the mines of Portugalete yield ore even richer than that of Potosi, though as yet the returns of silver has not been equal. Chichas, Laurani, Arque, Lipez, and Oruro, were all at one time famous mines, but though some of them are still worked, most of them are either abandoned, or lie fallow for want of capital to work them, or from the scarcity of water, or the unproductive deserts in which they are situated. But the mines which have of late years attracted some attention are those of Caracoles, 120 miles from the sea, and situated in the desert of Atacama. Thither in 1870 flocked adventurers from Chili, Peru, and even from the Atlantic and North Pacific countries. The mines were discovered by Don José Diaz Gana, one of the most indefatigable of Bolivian "prospectors." The deposits were lighted upon as these deposits often are, by that unsystematised chain of reasoning which for want of a better name we call chance. One of Gana's explorers, while climbing up the easy slope of a mountain, pulled up loose pieces of silver ore, on the places where are now the Merceditas and Deseada Mines, and followed on southward, picking them up in different directions, not knowing their true value, but thinking possibly that they might be of service. Others of the explorers had similar experiences. They had also found loose pieces of ore, and had made marks in the lumps with their knives. "Two of them immediately started to the coast to inform their patron. They had been to Diaz Gana what Sancho Mundo was to Columbus. The discovery was made, and that dry and solitary desert a short time after was the centre of an active population." These mines are from 1,000 to 1,500 feet above the level of the sea, and among the richest may be reckoned Deseada, Merceditos, Flor del Desierto, Esperanza, San Jose, and Esmeralda. There are others promising, and a good many more, worthless. At one time, the stock of these mines was sold at fabulous prices. In Caracoles, fortunes of millions were made in a day, though thousands went there only to bury their means and their bones also in the vain search for the hidden treasures.†

* Markham: *Journal of the Royal Geographical Society*, Vol. XXXI. (1861), &c.

† Matthews: *Proceedings of the Royal Geographical Society*, Vol. XXII. (1877), p. 47.

Copper is, however, only second to silver as a mineral product of Bolivia. From the mines of Ingavi, in the Province of La Paz, 15,000 to 20,000 cwt. of metal are annually extracted. Tin, lead, quicksilver, coal, iron, precious stones—including hyacinth, opals, and diamonds—may be also enumerated as among the riches of the soil of Bolivia. Mining, notwithstanding its importance to the country, has of late years slowly fallen into decay. The disturbed condition of the country, giving no security for capital, and the listlessness and want of enterprise of the people, are the main causes of this. As a consequence, mines which, under good hands might be valuable property, lie fallow, and others are inefficiently worked, the method of reducing the ore being everywhere throughout Bolivia, in spite of European skill, mining schools, and long experience, inefficient and antiquated to the last degree.

The riches on the soil are not, perhaps, so valuable as those *in* it; yet, the vegetable products of Bolivia are extremely rich and varied. Rice, oats, maize, barley, cotton, indigo, potatoes, cinchona bark, quinoa, and an endless variety of fruits and medicinal herbs may be mentioned among these. Quinoa is a plant which we have not yet met with. It is a species of goose foot (*Chenopodium Quinoa*), native to the Pacific slopes of the Andes, and largely cultivated, not only in Bolivia, but in Chili and Peru, for the sake of its seeds, which are used as an article of food. A kind of gruel, seasoned with Chili pepper, is the form in which the meal is used, or the grains are roasted, boiled in water, and the brown liquid, which is strained through, drunk like coffee. This is the carapulque, which is such a favourite dish with the ladies of Lima. Though probably a nutritious article of food, it cannot be deemed that to tastes not educated to the use of it, quinoa, no matter how prepared, is not a palatable dish. Cocoa we have already had occasion more than once to notice, as we travelled south from Mexico, but coca, or cuca, is a new plant. As soon as we get into Peru we shall again make its acquaintance, but meantime, in Bolivia, its use is forced upon our notice. *Erythroxylon coca* (Plate XXVI. and p. 188) is a shrub six or eight feet high, belonging to the order *Erythroxylaceæ*, in appearance not unlike a black thorn bush, and is remarkable, owing to the fact of its thin, opaque, oval leaves being chewed by the Indians, and other inhabitants of the countries in which it is found, for the sake of the sustaining property which they undoubtedly possess. They were, indeed, used for this purpose in the time of the Incas, and of late years their celebrity has spread, not only through Peru, Chili, and Bolivia, but into Ecuador, Colombia, and to the banks of the Rio Negro, where it is known as "Spadic." A few years ago, owing to some experiments made on them in England, they were introduced into this country, and may now be commonly bought, either in the ordinary dried form, or in the various "preparations" in the druggists' shops. No Indian in Bolivia or Peru thinks of travelling without a little leathern bag of the dried leaves, and a gourd of powdered lime. The leaves are chewed four times a day, mixed, either with the powdered lime, or with the ashes of *Cecropia*, or quinoa. In moderation, they are said to produce a pleasant sensation, and an oblivion of care. Owing to its action on the nervous system, those using it can sustain their strength under great fatigue and through long journeys without any other food. With a chew of this wonderful leaf in his cheek, Dr. Richard Spruce, the celebrated botanist, declares that an Indian will go from two to three days without food, and even without any desire for sleep, and Tschudi, Markham, and others

tell equally wonderful tales of its effects on the constitution. It has been estimated that 8,000,000 of the human race use this plant. The poet Cowley represents the Indian "Pachamna" as addressing Venus in these words:—

"Our *Taricocha* first the Coca sent,
Endowed with Leaves of wondrous Nourishment,
Whose Juice succ'd in, and to the Stomach taken,
Long Hunger, and long Labour can sustain;
From which our faint and weary Bodies find
More Succour, more they cheer the drooping Mind
Than can your *Bacchus* and your *Ceres* join'd.
Three Leaves' supply for six days' march, afford
The *Quitaita*, with this Provision stor'd,
Can pass the vast and cloudy *Andes* o'er."

Its abuse is said to produce a gloomy sort of mania, and much the same effect as opium



SPRIG OF THE COCA PLANT (*Erythroxylon coca*).

taken in excess. By-and-by the coca chewer becomes a perfect slave to it, and loses care for anything save the gratification of his passion for these "leaves of wondrous nourishment."

It must, nevertheless, be allowed that those who reach the stage when coca becomes absolutely dangerous are not many, for Dr. Archibald Smith, who passed many years in Peru, never met with an instance in which the chewer was affected with mania, or tremor of the limbs, while, notwithstanding the assertions of Pöppig and Lloyd, both Garcilasso de la Vega—himself an Inca—Von Tschudi, and Markham, regard it as one of the best gifts of Nature to a race upon whom her gifts have not been prodigally lavished. The old Peruvians offered it as sacrifice to their gods, and the silver

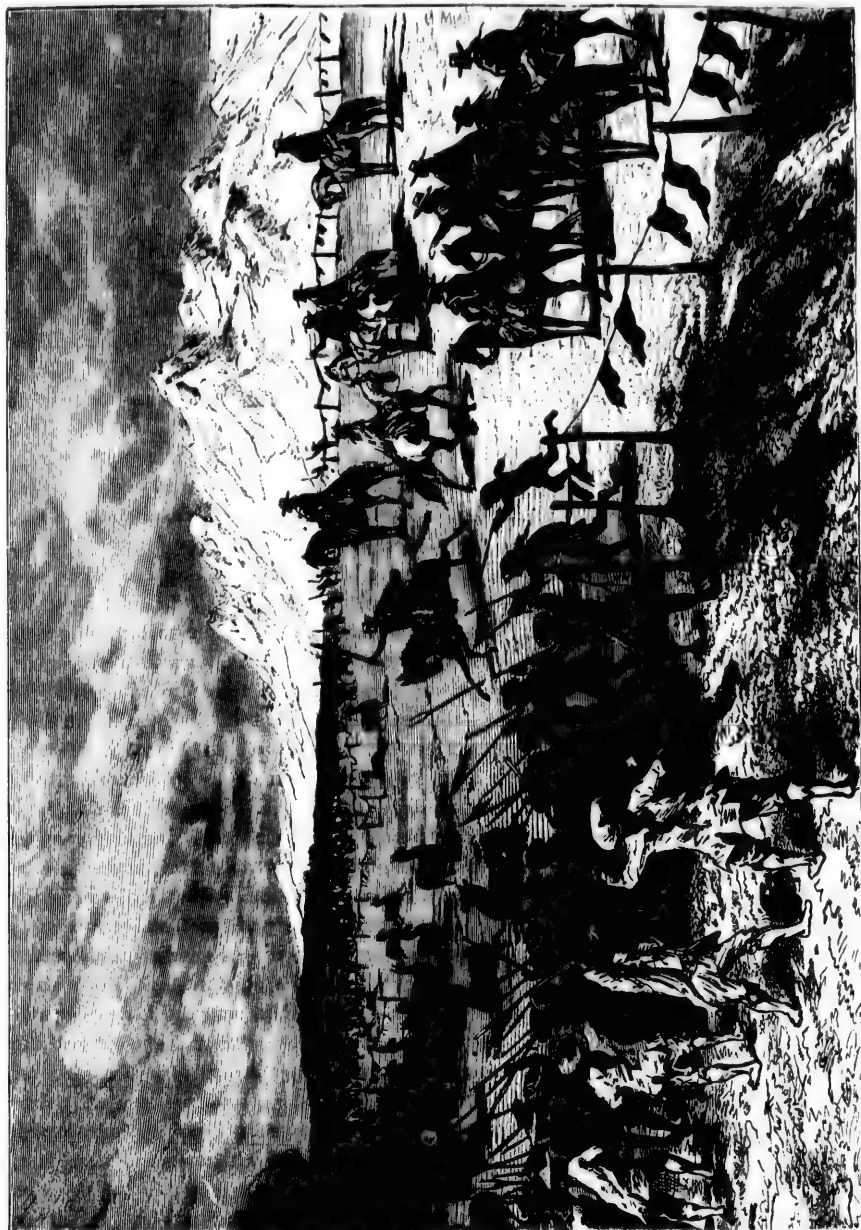
miners to this day will throw it on the rock they are working in, under the belief that this all-potent herb will soften the vein of ore. It owes its properties to an alkaloid, called cocaine, highly poisonous, though identical in its physiological action with the milder principles of tea, coffee, and cocoa.* Bolivia has within its bounds some peculiar animals—specially suited for the conditions of the climate and life which prevail there. These are the guanaco, or huanaca (*Auchenia Huanaca*), the llama (*Auchenia Paco*), the alpaca (*Auchenia lama*)—the second and third being probably only domesticated forms of the first—and the vicuña. The first three are allied to the African camels, and seem peculiarly fitted for subsisting in desert places. Their feet

* A. Bennett: *Edinburgh Medical Journal*, Oct., 1873, p. 33; Christison: *British Medical Journal*, 1876, p. 527; Markham: "Travels in Peru and India," p. 232; Tschudi: "Travels in Peru;" Garcilasso de la Vega: "Commentaries of the Incas," translated by C. R. Markham, &c.

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THE ANNUAL "RODEO," OR SEPARATION FROM THE GENERAL FLOCK OF THE LLAMAS,
BELONGING TO DIFFERENT PROPRIETORS

are so formed as to enable them to climb rocky declivities, and travel long distances through rugged, parched countries. These regions the guanaco frequents, and, when the country gets greener, more fertile, and, therefore, more suited to the ordinary animal life of the lower regions, the guanaco disappears, or becomes exceedingly scarce. When young, the flesh is a pleasant article of food. Their wool is woven into cloth, and their skins tanned form the leather from which shoes and harness are extensively made. There are said to be about three millions of llamas and their allies in the country, and of these fully one-third are employed as beasts of burden. Indeed, without them the traffic of Peru could not at present be carried on. The vicuña is a form of camel (*Camelus vicugna*), but is smaller than the preceding, though in its habits it greatly resembles them, but, as it is a timid, wild animal, cannot be employed as a beast of burden. The chinchilla (*Chincilla lanigera*) is a mountain animal, hunted for the sake of its fine fur. There are also millions of sheep in the Bolivian highlands, while in the wooded parts of the country range jaguars, tapirs, and other animals of this latitude.

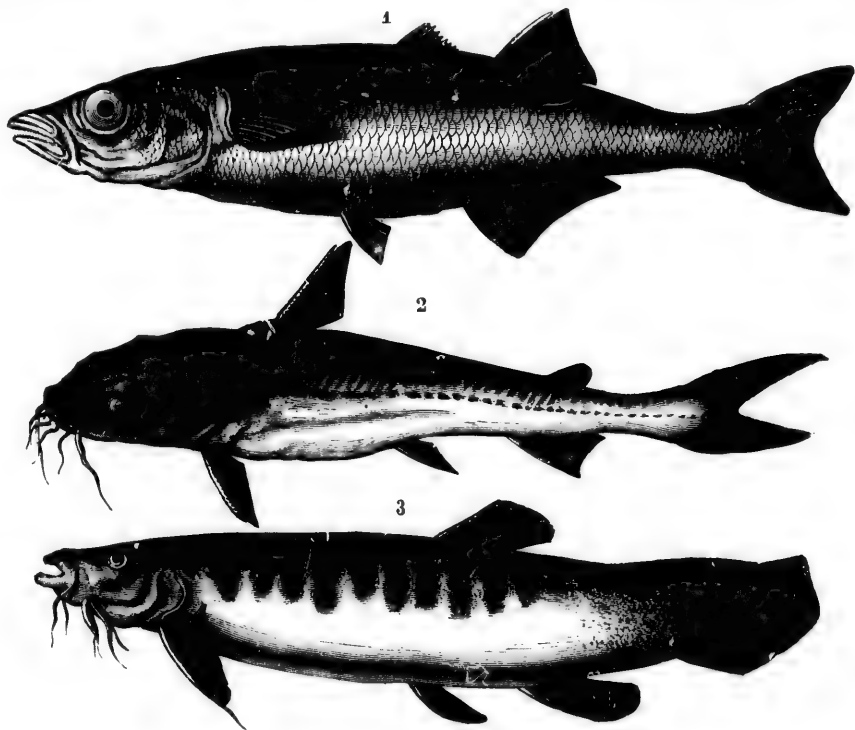
It is always difficult to get at the exact products exported by a country which, like Bolivia, is practically shut off from communication with the ocean. Silver, gold, copper, leather, wool of the vicuña, alpaca, and sheep, guano, nitrate of soda, coffee, cocoa, and cinchona bark are we know exported; but, as these articles pass through other countries, they are often credited to the ports from whence they are shipped. Thus, the metals are generally put among Peruvian exports, and the wool, bark, &c., among those of the Argentine Confederation. The Indian fabrics are used solely by themselves, while the cattle of the eastern regions of the Republic are used to feed the miners in the mountain towns. A considerable number of cattle are also imported from the Argentine Republic, and also some mules, though this traffic is now nothing to what it once was, when from 60,000 to 80,000 mules were every year sent from the plains of the Rio de la Plata to Upper and Lower Peru. But that was before the Declaration of Independence, and the subsequent decay of the mining and other industries of Bolivia. From the facts stated, as well as from the carelessness of the Government in never publishing any regular or accurate returns of their exports or imports, it is difficult to get at anything like approximate figures of the commerce of Bolivia. The export and import trade is in the hands of a few English and German houses, who accumulate steady fortunes, and, accordingly, are not much inclined to leave the ruts they have been travelling in for so many years. Owing to the unimportance of the port of Cobija—from the desert behind it—most of the Peruvian imports from the Pacific enter through what are called the Puertos Intermedios. These are the ports of Arica and Arequipa. By a convention entered into with Peru, the difficulty of collecting the import duties on the land frontier of either country was obviated by making commerce between the two countries perfectly free and unrestricted, on the condition of Peru paying Bolivia the sum of £81,000 per annum (405,000 dollars). Taking the year 1873 as a guide, Mr. Matthews calculates, from the Customs return of the port of Arica, that the trade of Bolivia is worth to the Peruvian Customs about £381,000 per annum, or in other words that Peru gained by Bolivian commerce £300,000 at one port. It is, therefore, evident that any extension of commerce

on the Pacific side cannot greatly benefit Bolivian finance, and that, accordingly, the Republic should concentrate her energies in opening up new trade routes from her eastern borders. The necessity of such a route is evident from the simple fact that on the frontier of Chuquisaca the owner of a magnificent harvest has been known to only reap a small portion of it, owing to the difficulty, and all but impossibility, of getting it to the sea. Such a road we have already indicated as existing, either down into the plains of La Plata, or further along the Mamoré, Madeira, and Amazon. In 1875 the total exports of Bolivia were valued at about £1,000,000, and the imports at £1,500,000. In 1876 Bolivia sent to Great Britain £413,119 worth of goods, and received from us £198,226. The latter was a great advance over previous years, but the former was a falling off from the returns of most of the preceding years.

PROSPECTS OF BOLIVIA.

A country with the resources of this Republic cannot surely be always destined to be in that stage of life which may be expressed by "great expectations." But before it does so, Bolivia requires many things which it has at present no great prospect of getting. It "agonises" for money, for it is in debt at home and abroad, and its income does not always meet its expenditure. It wants roads, it wants bridges and ferries of a less primitive type than that figured on p. 184, it wants railways, it wants capitalists, and above all it most earnestly requires men who have not a taste for revolutions and for soldiers' coats. It has splendid natural resources—every climate in the world—and mineral wealth such as no country save England or the United States possesses. Many parts of the country are not tilled, simply because there is no chance of getting the produce to a remunerative market. "At altitudes of 12,000 feet barley and potatoes are grown; at 9,000 to 6,000, corn, potatoes, pears, and all kinds of temperate fruits; 6,000 to 2,000, coffee, cocoa, coca, and plantains; and from 2,000 to the plains, cocoa, plantains, sugar-cane, maize, mandioc, arrowroot, yams, tobacco, and other tropical products. Few, indeed, are the countries that, in addition to the speculative allurements of mineral wealth, can hold forth such substantial inducements to the tiller of the soil; and there is, therefore, no doubt that the character of the people will improve when, through facilities of communication, remunerative work is afforded them, for Bolivians, whether of Indian or Spanish extraction, are very industrious, differing greatly, in this respect, from the inhabitants of many other countries of South America." Bad government has also something to do with the neglect of their richness, which, in the passage I have quoted, Mr. Matthews gives so lucid a *précis* of. A country so overturned by revolution cannot be prosperous. Even the Indians, freed from the task of the mita, and no longer impressed, as they were in the days of the Spaniards to the extent of 100,000 per annum, to toil in the mines of Potosi, are too oppressed by the rapacious *corregidores* and tax-gatherers to cultivate a tithe of the land throughout. There are inexhaustible silver mines, but no corn, and riches going to waste because there is neither enterprise nor money to make roads. Everybody wants a government office, and as the readiest way of attaining this end, become active enemies of whoever holds those desirable posts. More rapid modes of communication would change all this. We thus narrow the evils of Bolivia, and the cure for them, to the finest point, namely, the want of

roads, and the making of them. These wonderful children of Old Spain are, however, always in the condition of what are styled in their own language *bisoñosos*—"people who want something." They are invariably in need of money or of money's worth, and unhappily for the givers, and perhaps also for the receivers, there are usually abundance of easy capitalists ready to present them with both. Yet they rarely receive gratitude, and assuredly they get nothing more substantial. The thanklessness with which all of



FISH FROM LAKE TITICACA, BOLIVIA.

(1. *Atherina regia*. 2. *Bagrus trachypomus*. 3. *Trichomycterus pictus*.)

these South American Republics have treated their benefactors—native and foreign—is one of the lasting disgraces from which they will not soon get clear. During the lifetime of those who have toiled in their behalf, they revile and rob them! When dead they rear monuments to them. The patriot asks for bread to keep him alive; instead, he gets a stone to his memory.*

* Reck: *Petermann's Geographische Mittheilungen* (1865-67); D'Orbigny: *Descripcion geografica historica y estadistica de Bolivia* (1845); Macroy: "Voyage Across South America" (1870); Cortes: "Bolivia" (1875); Weddel: "Voyage dans le nord de la Bolivie" (1863), and various papers, &c., of Forbes, Church, Johnston, Markham, and others quoted.

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VIEW OF THE CITY OF BUENOS AYRES, ARGENTINE REPUBLIC.



GATHERING YERBA-MATÉ ON THE BANKS OF THE PARANA, PARAGUAY.

CHAPTER XIII.

THE REPUBLICS OF PARAGUAY AND URUGUAY.

BEFORE doubling Cape Horn and studying the coast-lying regions of Chili and Peru, preparatory to voyaging among the islands of the Pacific, we had better cross the Andes and descend into the low-lying plains along the Parana, Paraguay, Vermejo, Pilcomayo, and other tributaries of the Rio de la Plata. Dovetailed as it were among the lower courses of the Parana lies the Republic of Paraguay, while lower down, bounded on its whole eastern border by the sea, is the Argentine Confederation, while, shut in by the Uruguay river on the west, the Rio Grande do Sul Province of Brazil on the north, and the Rio de la Plata and the Atlantic on the south and west, is the little republic of Uruguay, which we have more than once referred to under the designation of Banda Oriental, which name it bore prior to separating from Brazil, and by which it is still often called.

PARAGUAY.

Discovered by Sebastian Cabot in 1526, Paragaaay was first colonised in 1535 by Pedro de Mendoza, who founded the city of Asuncion, and constituted the neighbouring region a province of the Viceroyalty of Peru. For long the Guarani Indians opposed the settlers, who were, for the most part, profligates of the worst type. In the sixteenth century the Jesuits wended their way thither, but could do nothing with the natives, owing to the evil example of the colonists. In the disciples of Loyola these sons of Belial, however, soon found their masters. The Jesuits soon persuaded Government to constitute them the sole rulers, civil as well as religious, of the provinces. The result was, the expulsion of all Europeans from the country who were at all calculated to interfere with the proselytising projects of the Fathers. In a few years Paraguay was a colony modelled on the plan of a Christian primitive community. The Indians were, of course, soon reduced to the condition of mere children—tools indeed—in the hands of the Jesuits, though the pictures which contemporary writers have left us of the country at that time reads like a description of a sub-tropical Utopia. But troubles soon came upon the Paraguayans. In two years (1628-30) it was calculated that 60,000 were sold in Rio de Janeiro market-place by the ruffians who made raid on the missions from the Brazilian provinces of São Paulo. Altogether it was calculated that from the Jesuit establishments alone 100,000 "converted" Indians had perished or been carried off by their robber Paulistas. This was no longer possible. In the new Christian republic of the Jesuits the converts were far out of reach of the Mameluco slave-hunters. Every mission was built on the same plan. A great plaza, or square, was in the centre; here was the church, the college, the arsenal, stores, and workshops. Nor was the necessity of self-defence neglected, for while during six days in the week the children sang through the village street the doctrines of the Church, every Monday the male inhabitants practised drill, infantry and cavalry, shooting at marks being especially cultivated as a useful exercise for brown Christians who might, in discharge of the first duty of a citizen, have to kill white Pagans.

Every day the ceremonies of the Church were observed, and on high occasions with a great deal of pomp. The industries of peace and even of fine arts were not neglected, for the wood carvings of the old misioneros still excite the wonder of a ruder generation. Printing presses were established, and various works were issued in the Guarani language—in a word, the Paraguayan missions were institutions almost unique in the annals of such enterprises. In 1740 the population of the Jesuit "reductions" was about 140,000 souls; but in 1801—thirty-four years after the jealousy of the Spanish Government had decreed the expulsion of the fathers—the survivors of the thirty missions did not number over 44,000. Many of the converts had taken to the woods; the plantations were abandoned; cattle, sheep, and horses were destroyed; "and," write the authors from whom I have derived much of my information regarding the modern condition of the River Plate Republics,* "the traveller cannot but view with regret the crumbling remains of the fine monuments that were once the glory of a happy and progressive people under the Jesuit Republic" (p. 201). Forty years after the Jesuits were overthrown the Spaniards were expelled, and Paraguay then experienced how men will sometimes flee from the ills they

* M. G. and E. T. Mulhall: "Handbook of the River Plate Republics" (1875).

have to others that they wot not of. Scarcely had the rule of His Most Catholic Majesty disappeared, than for their sins, and the sins of their fathers, arose a terrible man, who for twenty-five years lashed the land with a scourge of iron. This was the famous Dr. José Gaspar Rodríguez Francia, the "Dictator of Paraguay." But tyrants have ever been the lot of that land. For no sooner was Francia dead, than—after a brief interval of anarchy—his nephew, Carlos Antonio López, succeeded him, and on his death-bed transmitted his power to his son, Francisco Solano, better known as Marshal López. There had by this time almost ceased to be any semblance of a Republic, or the slightest recognition of the rights of a free people to have a voice in the selection of their rulers. The Government was, to all intents and purposes, an absolute monarchy, and it soon became apparent that López II., as he called himself, was prepared to make it so in name also. He aimed at being Emperor, and with his fatal ambition brought ruin on himself and on the country, which, in spite of their despotic thrall, had made considerable progress, both under his grand-uncle, his father, and himself. But López dreamed of conquering the neighbouring territories, and building up a realm for himself such as that which he had seen a not much more capable, and quite as unscrupulous, man carve out of a quondam Republic, to which, during his father's lifetime, he had been Paraguayan Ambassador. No one being prepared for such an audacious scheme, López overran the Brazilian province of Matto Grosso almost without resistance, and in the next year (1865) invaded that of Rio Grande and the Argentine one of Corrientes with equal success. So sudden were his movements, that with the 60,000 disciplined and well-equipped troops which he had at command he might have ravaged half the continent, had the generals with whom he trusted his enterprises possessed half the daring, or even a tithe of the energy, of their master. But they dilly-dallied when they ought to have been active, and vented rodomontade, while their enemies were collecting troops, arms, and ships. To make a long tale short, the united forces of the Argentines, Uruguayans, and Brazilians, made an end of López and his half-savage Paraguayans; but not until every footbreadth of the ground was contested by the wild soldiery of a more than half-mad despot. Hunger, nakedness, death, disease, want of arms, want of officers, and latterly want of men, broke the Paraguayan sword-arm. The men killed off, the women went forth to battle, and afforded the world a spectacle of the results of insensate ambition, tempered and ennobled by courage, devotion, and patriotism, such as have been rarely witnessed in modern times. López was a man without private and almost without public morality—a sensualist, who squandered the revenues of the State on unworthy objects, and, judging him from his work, politically a ruler to whom no name too severe can be applied. Yet in this swarthy despot there was something almost heroic; and amid all the misery and wrong he wrought, the world cannot withhold from him something of that reverence which his countrymen have accorded him. After six years' resistance against overwhelming odds, the last remnant of the broken forces of Paraguay were overtaken in the mountains of the interior, and at Aquidaban, on the 1st day of March, 1870, Francisco López ended on the field of battle his career and his crimes. Then his land was divided—*væ victis*; it was the old story. Unable to be said nay, Uruguay took what she claimed, and Argentina asserted what she considered her "rights" by annexing still more of Paraguay, leaving the rest to be a sort of Republic under the protectorate

of Brazil. Once a prominent name in their newspapers, we hear little now of the land of Lopez, unless when it is installing or murdering a President, negotiating an unhappy "loan," or presuming on the credulity of hungry Europe by holding out great inducements for English labourers to settle within its bounds. The "loans" met the fate of most of such affairs in South America, though they were not more unlucky to the lenders than any man gifted with the smallest of geographical or political wisdom could have foretold. First, in 1871, a million was got in London; then, in 1872, two millions. They were to be devoted to building railways; but as the scrip when last heard tell of was at



INDIAN GIRL OF PARAGUAY.

25, it is, perhaps, unnecessary to say that the railways were never built. The bonds are now chiefly valuable as documentary evidence of the strength of human credulity. The colony of "Lincolnshire farmers" was even more hapless, for out of the 800 deluded people, 160 died of privation and hardship and two were murdered by the natives. The rest were, by the aid of the charitable, removed to Buenos Ayres, sadder and wiser men and women. The country is at present in a state of anarchy, which even the most sanguine must pronounce "hopeless." During the first year of President Jovellano's term of office there were three revolutions, the rebels shutting up the Governor in the capital. So utterly wearied and dispirited had the people become, that, as their only chance of obtaining order, they called in the Brazilian troops to aid them.

Since then, the Paraguayans can scarcely claim an independent position among the commonwealth of nations. They have murdered one President since that date, and installed

a third. But this ruler—Don Higinio Uriarte—is not a very promising subject for a life insurance company to speculate in.

THE GEOGRAPHY AND RESOURCES OF PARAGUAY.

This ill-fated country, shut in from all direct communication with the sea, is, though



MARKET PEOPLE OF PARAGUAY.

not a large extent of territory, one which, with a different race to vegetate on it and an entirely different set of rulers, might be made of some value to the world. Before its outraged neighbours had fixed its boundaries to suit themselves, Paraguay was estimated to embrace an area of 103,115 square miles; but nowadays its limits are so reduced that the most authoritative statistics estimate the area of the republic at 57,303 square miles. But even of

this amount only a comparatively small portion is inhabited. At the best of times the cultivated part never exceeded one-fifth of the country; and although, in 1857, a census affected to state the population at 1,337,449 inhabitants, it is believed by Mulhall and others that the real number was never over half a million, and that at present it hardly exceeds 100,000. It is estimated that during the war 100,000 men alone perished; but the mortality of that fatal struggle included more than twice as many women and children slaughtered in battle, and in the sacking of towns, or who died of exposure and starvation in the woods. The survivors are said to have existed for months by devouring the bitter oranges growing wild in the forests.* The Cordilleras bisect the country, the eastern half being almost uninhabited, and it is drained by four rivers, which fall into the Upper Parana. The climate is warm, but, as a rule, very healthy in the upper grounds. The sea-breezes, as might be expected in a country the nearest point of which lies 500 miles from the Atlantic and 900 from the Pacific, do not reach it; but, on the other hand, the climate is affected by the north and south winds, the former, owing to their blowing over the tropics, having a relaxing tendency, while the latter, coming from the foggy region of Cape Horn, are the precursors of rain and storms. Stately forests, covering an undulating or mountainous country, rich valleys, snow peaks, rivers, and lakes are the characteristics which strike a traveller visiting Paraguay for the first time. But bad roads, no conveyances, and endless other drawbacks, make travelling in Paraguay not more the "Fool's Paradise" than the exploration of such countries usually are. The plants and animals are those of the neighbouring regions; and of the animals enumerated by Azara, one of its earliest, and still one of the most trustworthy of its explorers, the locust is the least welcome. It pays periodical visits, and sometimes before it leaves devastates a whole district. Its mineral resources are copper, iron, and various precious metals, all, as yet, imperfectly developed. Timbers of many valuable kinds abound. The harder of these will sink when thrown into water, showing the density of their texture. Hence, in Buenos Ayres and the other towns of the treeless plains of Argentina, they are held in great esteem by builders. Salt is so scarce in the country that, in the course of the war, on account of their constitutions being enfeebled by the want of it in their food, the wounds of many of the soldiers would not heal. During the reign of Francia, Paraguay was "hermetically closed" to the world, by its rivers being shut against its outward or inward commerce. Both accordingly were in these long years non-existent. Under the Lopez *régime* trade was greatly hampered by Government monopolies, by war, and by the ruin which subsequently overtook the country; yet, up to 1860, commerce was rapidly increasing, the exports showing a large increase over the imports. The former consisted of yerba-maté (of which more anon), tobacco, dry and tanned hides, bark for tanning, oranges, timber, &c., the whole amounting to a gross value of 1,693,904 dollars. In 1876

* The Messrs. Mulhall, from the excellent opportunities they have of ascertaining the truth, have arrived at the decision given. It may, however, be added, by way of modification, that a rough census made in 1873—but how I have failed to learn—claims for the Republic 221,079 inhabitants, of whom 86,049 were children, 28,746 males above fifteen years of age, and 106,254 females over the same years. In 1876, the population was estimated at 293,844 inhabitants. The strangers in that year were numbered at 6,000. Of these, 1,500 were Brazilians, 2,500 Italians, 600 Portuguese, 400 Argentines, 250 Spaniards, 150 Austrians, 120 French, 90 Germans, 80 English, 80 Uruguayans, and 230 of other nationalities. These figures must be received with caution.

the imports were put down at 657,446 dollars, and the exports at 392,887 dollars. These statistics, however, show how the balance of imports over exports has been turned by the changes the country suffered through the war. Nearly three-fourths of the land is Government property. This consists of pasture tracks and forests (never sold or granted to private individuals), the estates of the old Jesuit fathers, and the numerous Government farms and plantations. When Lopez I. was at the height of his power, each of the then twenty departments "had a town or village with local authorities, such as commandant, justice of the peace, and curate; the police administration was the most perfect imaginable, and a system of espionage pervaded the whole country. Crime was so rare that murder or robbery were unknown, and the traveller might go unarmed through the wildest parts of the interior. There were no public conveyances, and it was difficult to travel unless by order of Government, when changes of horses were obtained everywhere, and the justice of peace provided such hospitality as is found in other countries in inns." In the prosperous days before the war, though there were few landed proprietors, yet the Government granted leases of the public lands to any cultivator at a merely nominal rent, and accordingly, at every mile or so along the highways, small "copueras" of maize, mandioca, beans, cotton, tobacco, sugarcane, maize, rice, and other crops were to be met with. In 1870 it was found the Government estates consisted of 42,000 square miles of arable land, 27,000 of mountain and forest, and 5,040 of "yerbales," the rest of the 90,000 square miles, which, before the re-arrangement of the boundaries, the country was calculated by the census to consist of, being in the hands of private individuals. The "yerbales" are the plantation of the yerba-maté, which, under its Portuguese name of "herva," we have already made the acquaintance of. It is used all over the southern part of the continent as a substitute for tea and coffee, and is usually seen in commerce in the form of powdered leaves and twigs. It is drunk without milk or sugar, and is sucked through a silver tube, terminated by a perforated bulb, which forms a spout to the small gourd which gives its name to the drink. Of course, the poorer people have to be content with a less pretentious equipage. No matter where one goes in the River Plate Republics, in every house the maté-pot is ready to be produced, and the visitor would be considered churlish in the extreme, or deficient in all good taste, who would decline to apply his lips to the spout of the family gourd. Those who drink the infusion for the first time generally dislike it; but a taste for yerba, like the taste for most other articles of meat and drink, grows on one, so that the old residents in Paraguay or on the Pampas are as confirmed maté-drinkers as the veriest gaucho who ever swung a bolas or threw a lasso. We learn, however, from the Messrs. Mulhall that of late years the use of the drink has much diminished in Buenos Ayres. The sale of this article is, or was, Government monopoly. Lopez used to pay the "acopiadores" (or brokers) 1 dollar and 50 cents for twenty-five pounds, and sell it to exporters at double that price; but at the time, when our informants were writing (1875), it had risen to 2s. per lb. in Buenos Ayres. The quantity exported in 1876 is said to have been 4,651,000 lbs., representing a value approximating on £300,000: a statement not incredible, since 3,000,000 acres are occupied with its cultivation. The yerba* trade is, as we have already remarked, a Government monopoly. The yerba

* The plant is commonly called yerba-maté. The maté, however, is the gourd out of which the infusion of yerba, or "herb," is sucked.

speculator, having obtained a concession, takes his gang of "peons" to any chosen "yerbal." There, for the period when the trees are in "season"—six months of spring and summer—he settled down, collecting the twigs and leaves, drying them over a fire, and afterwards beating them into small fragments, and packing the tea thus obtained in hide bags, after the rudest and simplest process (p. 193). The tree is not at present as regularly cultivated in any part of Paraguay, though in former times the Jesuits made great plantations in the vicinity of their settlements. At Santiago, it is said, that a grove of no less than 20,000 trees flourished at the end of last century. One reason for this, apart from the apathy of the nation, is that the wild "tea" is finer flavoured than that obtained in the mission yerbals. The trees of the north also yield a better flavoured "tea" than those of the south of Paraguay, and the yerba of Chiriguelo is considered the finest of all; but from the difficulty of access to this remote yerbal it has never been worked, and the yerba of trade is chiefly derived from the districts of San Pedro and Rosario.*

What the revenue of Paraguay is at the present time it is very difficult to say. It is chiefly derived from the State property and monopolies, and from custom-house duties. The Budget of 1877 estimated the national income at £59,114, and the expenditure at £45,730. Up to the date of the long war Paraguay had no debt. This, unfortunately for the creditors, it has at the present time. But no part of either the principal or the interest of the £30,000,000 which the Republic owes to foreigners has been paid since 1874; and prior to that date the 8 per cent. was paid out of the loan itself. The country is thus likely, at least for some time to come, to be saved from rushing into further "liabilities" of this sort. In addition, Paraguay is indebted to Brazil about £40,000,000; to the Argentine Confederation, £7,000,000; and to Uruguay, £200,000; the whole of this debt of £47,200,000, coming under the head of indemnities for the war into which Lopez plunged his wretched country. In 1877 Paraguay had so far repented of its evil soldiering ways as to have Asuncion garrisoned by only 185 infantry, the sole available army of the Republic, exclusive of detachments of police placed at intervals along the frontier, at the cost of the different municipalities.

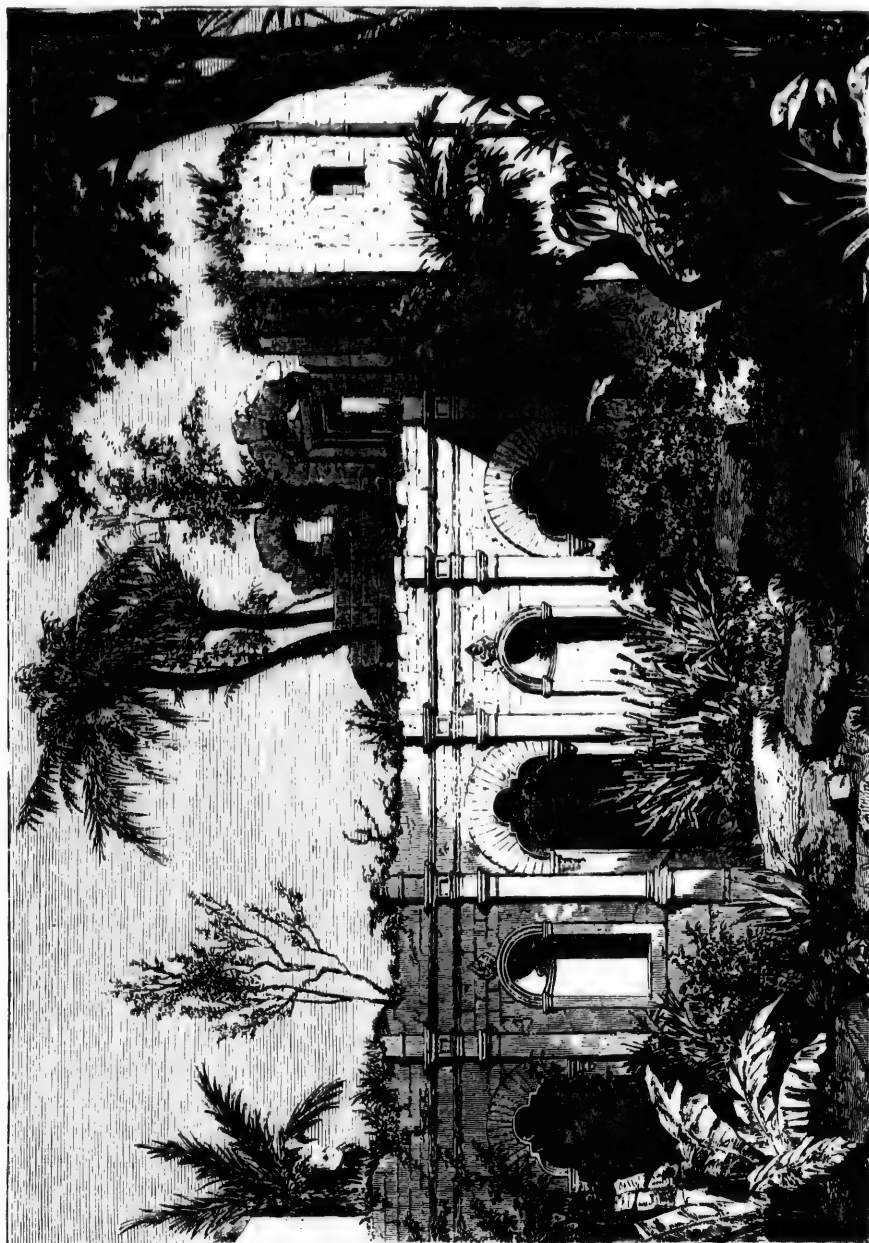
Paraguayan towns and villages are few. Excluding the capital, the village populations, according to a rough estimate made in 1874 by Mr. Johnston, who was engaged for some time in exploration for the Paraguayan Government, the total amounted to 13,800. Asuncion, the capital, is a picturesquely situated town, of about 10,000 inhabitants, though at one time it must have contained three times that number, and does not present any very marked difference from other South American Spanish towns, except that it has some fine buildings and excellent "club accommodation." The shops are poor, and everything excessively dear. A railway of forty miles (p. 205), traversing a beautiful country, runs on to Paraguari, the point at which the projected line to Villa Rica prematurely ended. The place is itself merely a small village, only remarkable as having been one of the great Jesuit establishments of the seventeenth and eighteenth centuries. Some of their farms in this vicinity had, in those days, 30,000 head of cattle on them; and it may be interesting to some of my readers to know that the records of these establishments show that,

* Keith Johnston: *Geographical Magazine* (1875), p. 345.

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RUINS OF A JESUIT MISSION CHURCH IN PARAGUAY.

judging by their names, some of the "fathers" were of English and Irish birth. Villa Rica is a place of more importance. It is situated in the midst of tobacco and mandioca fields, and is famous for cigars and the noble woods which cover the hills running east and west from it. Its population is 2,000, thus ranking as the second town in Paraguay. Pilar, or Nembuco—a pretty little town amid orange-groves, the few houses roofed with split palm trunks—was in Dr. Francia's time the limit to which strangers were allowed to penetrate into the country, and the only place open to foreign commerce. Villa Franca, Oliva, and Villeta are also quiet villages of much the same description. At Oliva Lopez had an establishment, from which "guardias" were stationed at every league along the Paraguayan bank of the river (Paraguay), to watch the wild Indian marauders from the Chaco. At Angostura, a few miles down the river from Villeta, where the river narrows much, Colonel Thompson, a Scotsman in Lopez's service during the war, held at bay for months the whole fleet and armies of the allies. Villa Occidental is a small town of 10,000 inhabitants, founded as late as 1854, but is now the capital of the Argentine Territory of Chaco. Rosario, San Pedro, Concepcion, and Salvador are the only other places which need be mentioned. The latter is one hundred miles from the Brazilian frontier, and only remarkable for its manufacture of ropes from the fibres of the aloe. In the time of the Jesuits the inhabitants wove the same material into cloth. Father Dobrizhoffer mentions that the stockings made of its thread were sent to France, and pronounced superior in strength and softness to silk (*Mulhall*).

THE PEOPLE AND PROSPECTS OF PARAGUAY.

The civilised population of Paraguay consists of the descendants of the Spaniards and the native Indians—sections of the great Guarani family, "who occupied the greater part of South America, from the Orinoco to the Middle Parana—and a small ingredient imported in earlier times by the Spaniards." Though these elements are still to be found in every stage of admixture, the unadulterated originals may be seen here and there in different parts of the country (pp. 196, 197). The Italians in Paraguay, as in most of the neighbouring countries, are the foreigners who carry on most of the river traffic, and in the towns monopolise to a great extent the retail business. Though unquestionably the earlier enumerations of the people were much exaggerated, yet it cannot be disputed that, previous to the war, Paraguay was in a prosperous condition. The remains of deserted habitations in every part of the country, and the knowledge of the number slain or of those who fled to the Argentine Republic and Brazil, attest this. Mr. Johnston found the greater part of the northern districts almost uninhabited. "The department of San Salvador, between the Aquidaban and the Apa, is a complete desert, excepting that the wild Indians from the Chaco have occupied the abandoned Capilla on the bank of the Paraguay. The districts of the mission south of the Tebicuari are now also all but deserted, though the frequent ruins and plantations, rapidly going back to a wild state, show that the former inhabitants must have been numerous. The bulk of the remaining population has drawn in round the capital, the heights of the plateau of Asuncion and the valleys of the Cordillerita being the only really peopled districts of Paraguay." The civilised population is thus confined exclusively to the western portions of the country. The eastern and some of the northern parts are still in possession of the primitive Indian tribes, who are

to this day as free and almost as wild as they were in those happy days when the Spaniard had not lusted after the gold of Don Mendoza's land. The names of these tribes it is not our province to give; indeed, one author complains that he has not room on his map to engrave all the different tribal titles which have been recorded. In truth, these are far too numerous. The Jesuits set down under the name of the chief every little rapidly changing section and sub-division of a tribe. It is, therefore, not surprising to find in even the most recent maps the names of tribes long ago extinct. The wild Guarani are, in reality, divided into two great sections, closely allied to each other. These are the "Canguás,"* or Forest People, and the "Guayanas" (not to be compared with a non-Guarani tribe of the same name which formerly inhabited the country east of the Uruguay). The former occupy the dense woods. They appear to be a mild, inoffensive people, keeping themselves very much to themselves, cultivating a little mandioca, and subsisting on this or by the produce of the forest or the river. The bow and short iron-shod spear are still their only weapons. The Guayanas are not so barbarous as the Canguás. Some, indeed, still profess a tattered remnant of the Christianity their fathers learned from the Jesuits, and are civilised enough to see it to be to their advantage to now and then seek work in the yerbals. These two divisions are, however, not the only Paraguayan Indians. Embedded in the midst of the Guaranis—hemmed in by them on all sides—are a few tribes altogether different in race, language, and customs. Among these are the wild Tupis—dreaded of old by the Mamelucos of São Paulo, and still the terror of the Upper Parana tribes—and the Ibitorocays, a very little known people. On the western side of the Paraguay are a few representatives of the once great tribe of the Payaguas, from whom the river probably derives its name. At one time they held command of the whole navigation of the river; but after long years of conflict with the Spaniards, they have been forced to yield to the inevitable, and now live, a dozen or two in number, under the protection of the descendants of their old enemies. In the Gran Chaco, bordering on Paraguay, are, at the present day, two great tribes: the Lenguas (or Mbayas) and the Tobas. The Lenguas got their name from the whites, owing to their peculiar *barbote*, or chain ornament, a semicircular piece of wood passed through a slit in the lower lip, which gives it the appearance of a hanging tongue, or *lengua* (much the same in the Botucudo, p. 160). As Azara tells us that, in 1724, the nation was so near death that only fourteen men and eight women remained, it is probable that, either the Lenguas have attained new strength, or that their name has passed over to other tribes which originally did not bear it, for, at the present time, the tribe so called is a numerous one. The Tobas, like the Lenguas, are a nomadic race; but their chief place of congregation is about the Lower Vermejo, outside the Paraguayan area. The name Guaycaru was that of a fine tribe of Indians who formerly inhabited the Chaco opposite Asuncion; but the tribe was completely destroyed before the beginning of the century. "Although the name is still used in Paraguay to designate the Chaco Indians in general, just as that of 'Camba' is applied to the Brazilians, or as we might use the term savage or barbarian, it has now no special application whatever."†

* Or Caaigua (*ca*, forest; *gua*, pertaining to).

† Johnston: "Recent Journeys in Paraguay," *Geographical Magazine* (1875), pp. 343—345; also Washburn: "History of Paraguay" (1871); Quentin: "Le Paraguay" (1866); Thompson: "The Paraguayan War" (1869); Mansfield: "Paraguay, Brazil, and the River Plate" (1866); Du Graty: "Le Republique de Paraguay"

A people so industrious, loyal, and gallant deserved a better fate than that which seems ever to have been their lot. Nor can we believe that a land so beautiful, so rich, and withal so suitable for the home of man, will always remain one of the waste places of the earth. South America—the reader of these pages has had abundant opportunities of seeing—is cursed with an itch for revolution—for ceaseless, senseless change. The people got self-government either, in some cases, before they were ready to appreciate it, or in others, after they had ceased by long centuries of misrule and all unwisdom to understand the use of the dangerous weapon they had wrenched from the nerveless grasp of Spain. Hence they abused it. It cannot be said that Paraguay was in either of these plights. Spain had directly governed the country but little; and, until the Jesuit establishments were broken up, the country had really enjoyed a kind of self-government, tempered by ecclesiastical tyranny. But the rule of the Jesuits and the misrule of Spain, which followed, only fitted the people for the “Double Consulate” and the despotism of Francia, the absolutism of the elder Lopez, the mad ambition of the younger one, and the chaos which followed the wreck and ruin wrought by him.

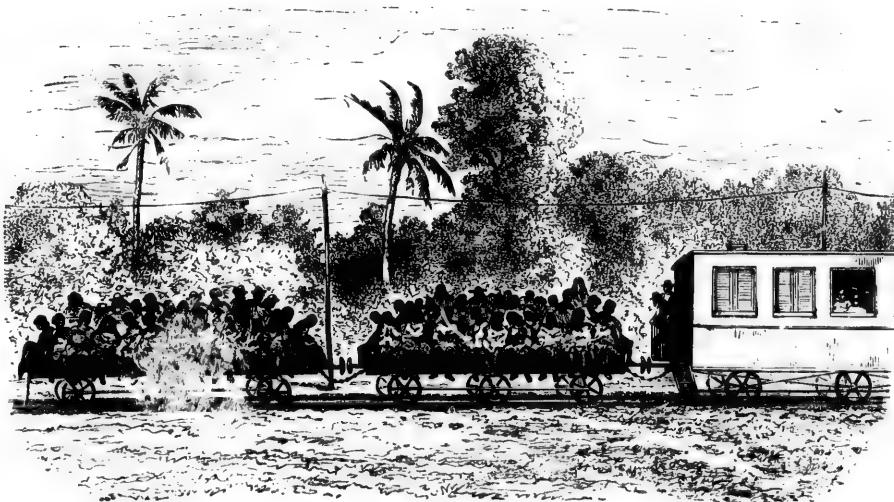
URUGUAY.

The Republic of Uruguay, or Banda Oriental, is the smallest independent State in South America, though one most favourably situated in respect of soil, geographical position, and climate. It lies south of Paraguay, and is separated from the Argentine Republic by the Rivers Plate and Uruguay. The former is, opposite Buenos Ayres, twenty-eight miles wide. Uruguay differs from the great plains of Argentina in being intersected with numerous cuchillas, or sierras, which is the local term for ranges of mountains. Many of its features, however, are the same as those of La Plata, the country being excellently adapted for sheep and cattle farming. The commerce of the capital (Montevideo, p. 209), situated near the mouth of the River Plate, is nearly equal to that of Buenos Ayres, from which port it is distant 120 miles. Salto and Paysandú, on the Uruguay; Canelones, Tacuarembó, and Minas, in the interior; Mercedes, on the Rio Negro; Colonia, abreast of Buenos Ayres; and Maldonado, on the Atlantic, are the next towns of importance. In some places the country is well wooded and diversified in appearance. During the late years, civil war—that chronic curse of South America—has desolated it. Nevertheless, there has been a great influx of immigrants, both from Europe and even from the neighbouring Argentine Republic. The population was between 1824 and 1864 increased five-fold, and was returned in 1876 officially at 445,000, of whom 110,000 were in the department of Montevideo, and the remaining 335,000 in the rural departments. The city of Montevideo had alone a population of 92,000 (now considerably more).* The area of the Republic is estimated at 73,538 square miles, or more than double the size of Ireland, and not much short of twice the size of England and Wales.

(1865); Demersay: “Histoire Physique, Economique, et Politique du Paraguay, &c.” (1865); Masterman: “Seven Eventful Years in Paraguay” (1869); Azara: “Description of Paraguay” (English Trans., 1836); Dobrizhoffer: “Account of the Abipones” (1822).

* Mulhall: “Handbook of the River Plate Republics,” pp. 12, 13. Behm and Wagner: “Bevölkerung der Erde” (1878).

Most of the Uruguayan commerce is with Great Britain, the rest being apportioned among France, the United States, Brazil, Spain, and Italy. To us Uruguay sends hides and tallow, and receives in return iron and cotton goods. Its revenue was in 1875 about £1,488,400, and its expenditure £2,529,092. The Republic is indebted to foreigners more than £8,000,000, and besides has an internal debt of about £3,500,000, exclusive of a floating one, calculated at a sum considerably larger. In addition, there are unsettled foreign claims against the State of £1,200,000. The Republic has, unlike most of its neighbours, continued to pay its debts, more than one-half of the expenditure of the State being due to that unaccustomed feature in South American finance; though, with the enormous expansion of the paper currency, with a forced circulation, the period when Uruguay will cease



A "PARLIAMENTARY TRAIN" IN PARAGUAY.

to be singular among her sister States is suspected not to be far off. Railways to the length of 206 miles were open in 1876, and telegraphs to the extent of 986 miles stitched some detached parts of the country together; and the length of both has materially increased since the last statistics were published. The soil is rich and well fitted for agriculture. "Being irrigated," writes Mulhall, "by a thousand streams of permanent water, and most unencumbered with timber or brushwood, the husbandman has only to till the virgin soil and await the harvest time, without fear of drought, locusts, dust-storms, or the like. The departments chiefly devoted to agriculture are Montevideo, Canelones, San José, and Maldonado. In the time of the Spaniards, the country produced neither wheat, rye, nor barley. At present corn is raised in such quantities as to keep 100 steam, wind, and water mills in constant work, besides a large exportation of grain to Buenos Ayres. In the departments of Canelones and San José we meet sundry colonies of natives of the Canary Islands, all occupied in raising wheat and other cereals. On the banks of the Uruguay, above the

Rio Negro, experiments have been successfully made for the growth of yerba-maté and tobacco, and it is even thought that the climate and soil are suitable for the production of tea and indigo. Cotton has been grown at Salto and elsewhere, while the plantain and sugarcane may be cultivated in many parts, and the *Eucalyptus globulus*, or Australian gum-tree, thrives in a wonderful manner." Fruits and medicinal herbs abound in the woods, and some of the departments yield excellent timber, such as walnut, white cedar, myrtle, mulberry, black laurel, and many other kinds. The guava and lapacho are the woods "proper to the country," suitable for carpenter's work; the flandubay is invaluable for fences; the quebracho and scarlet willow furnish excellent dyes; and so forth. Building stone, marbles, agates, abound; and gold, copper, silver, iron, and lead are found—the gold, indeed, it is believed, exists in large quantities—while other mineral resources could also be enumerated. But the great resources of Uruguay consist in its sheep and cattle, the latter being familiar to us in the form of Paysandú tongues, tinned beef, and Liebig's *extractum carnis*, which is prepared at Fray Bentos, a town of 2,000 inhabitants on the River Plate. In some places deer and ostriches are abundant on the plains. Notwithstanding that dogs—of a very currish breed—are, as in Buenos Ayres, so numerous as to be a nuisance, "tigers" (jaguars) are sometimes seen on the islands of the Uruguay and in the thickets bordering the rivers, while pumas are found now and then in the forests of the Rio Negro. They sometimes do so much destruction in the sheepfolds that the "estancieros," or farmers, form parties to hunt them down. The best class of shopkeepers in Montevideo are Frenchmen; Italians also are found in every grade of society; but the more considerable merchants are, in most cases, either German or English. The two latter close their houses of business on the Sunday; but in Montevideo all the other shops are open then as on any other day of the week, or, at least, until the hour approaches for the bull fight at the Union Circus. The "Orientals," as the Uruguayans are usually called, do not seem to have great commercial capacity, though some of them are wealthy estancieros and capitalists. The Government offices are, however, naturally, and perhaps not altogether to the advantage of the country, filled by the natives. Montevideo, so called from the cerro, or mount, in the vicinity, is, by the general verdict of all visitors, the "cleanest, handsomest, and healthiest city" in South America. With the exception of Salto and Paysandú, which have both 10,000 inhabitants, none of the other towns of Uruguay can boast a population of more than 5,000, and, indeed, Melo and Union, a suburb of Montevideo, are the only ones which attain that figure, most of the others ranging from 1,000 to 2,000. The language spoken is, of course, Spanish, though such is the number of foreign residents—Italians, Spaniards, French, and Basques, Brazilians, Germans, and English—that Uruguay, and especially Montevideo and the department of Paysandú, are very cosmopolitan. In the capital, 480 out of every 1,000 people are foreigners. Yet Uruguay is singular in possessing no Indians in all its territory. Moreover, the Africans, originally imported as slaves, are getting fewer and fewer every year, and even the "Mestizos" are mysteriously disappearing. There is perfect religious freedom, great liberty of the press, and education, if not high, is as well advanced as in most South American countries.

To this brief sketch of Uruguay we may add a few words regarding its history. For the facts I have mainly relied on the editors of the *Buenos Ayres Standard*, though to those acquainted with Spanish the literature of the history of Uruguay is rather

extensive.* After Uruguay had, with the aid of the province of Buenos, won its freedom from the Spanish yoke, it formed one of the provinces of the River Plate. In 1815, one year after the achievement of its independence, Montevideo seceded and formed a republic by itself. This was of brief duration, for the Portuguese invaded it, and in 1821 compelled the Oriental Congress to decree the annexation of the Banda Oriental to the Kingdom of Portugal and Brazil; and when Brazil became independent it was united to that empire, under the name of the Provincia Cis-Platina. In 1825, with the aid of the Argentines, the country again attained its independence, and soon after, with the exception of a part of Misiones retained by Brazil, the nationality of the "Republica Oriental del Uruguay" was finally recognised. In 1839 troubles arose with Buenos Ayres; and in the ensuing war and siege of Montevideo, which lasted for nine years, the country was reduced to that state of ruin and desolation which seems normal to South American countries at uncertain but frequent intervals. At last, in 1851, a rising against Rosas compelled the "dictator" to recall the Argentine troops. Then for a time Uruguay had peace. But in 1865 the revolution of Flores once more plunged the country into war, and necessitated the intervention of Brazil and the expulsion of the President. Close on this followed the Paraguayan struggle and the assassination of Flores. There have been four Presidents since then; and at present, under the latter of these, Colonel Latorre, elected in 1876 with dictatorial powers, the country is beginning once more to experience something like prosperity and that state of tranquillity to which the younger generation of Orientals have been strangers.

CHAPTER XIV.

THE ARGENTINE REPUBLIC.

CROSSING the River Plate—the Rio de La Plata of the Spaniards—we are at once in a new land, physically and politically. We have left behind the mountains and forests of Paraguay and Uruguay, and are in a land of grassy plains—the Pampas, or great prairies of South America. Politically, we are in the Republic of La Plata, the Argentine Confederation, or, as it is more familiarly called, the Argentine Republic, part of that immense region which, under the old Spanish rule, was comprised within the viceroyalty of Buenos Ayres. The water which laves its northern boundary, and forms the highway for commerce to enter the continent in this direction, is one of the greatest rivers in South America. A traveller can take steamer at Montevideo, and sail, without a stoppage, to the capital of the Brazilian province of Matto Grosso, 2,000 miles from the sea. At Montevideo the river is 465 miles wide, and brackish. At Buenos Ayres, though it is twenty-eight miles from shore to shore, yet the water is quite drinkable. Twenty miles above Buenos Ayres the

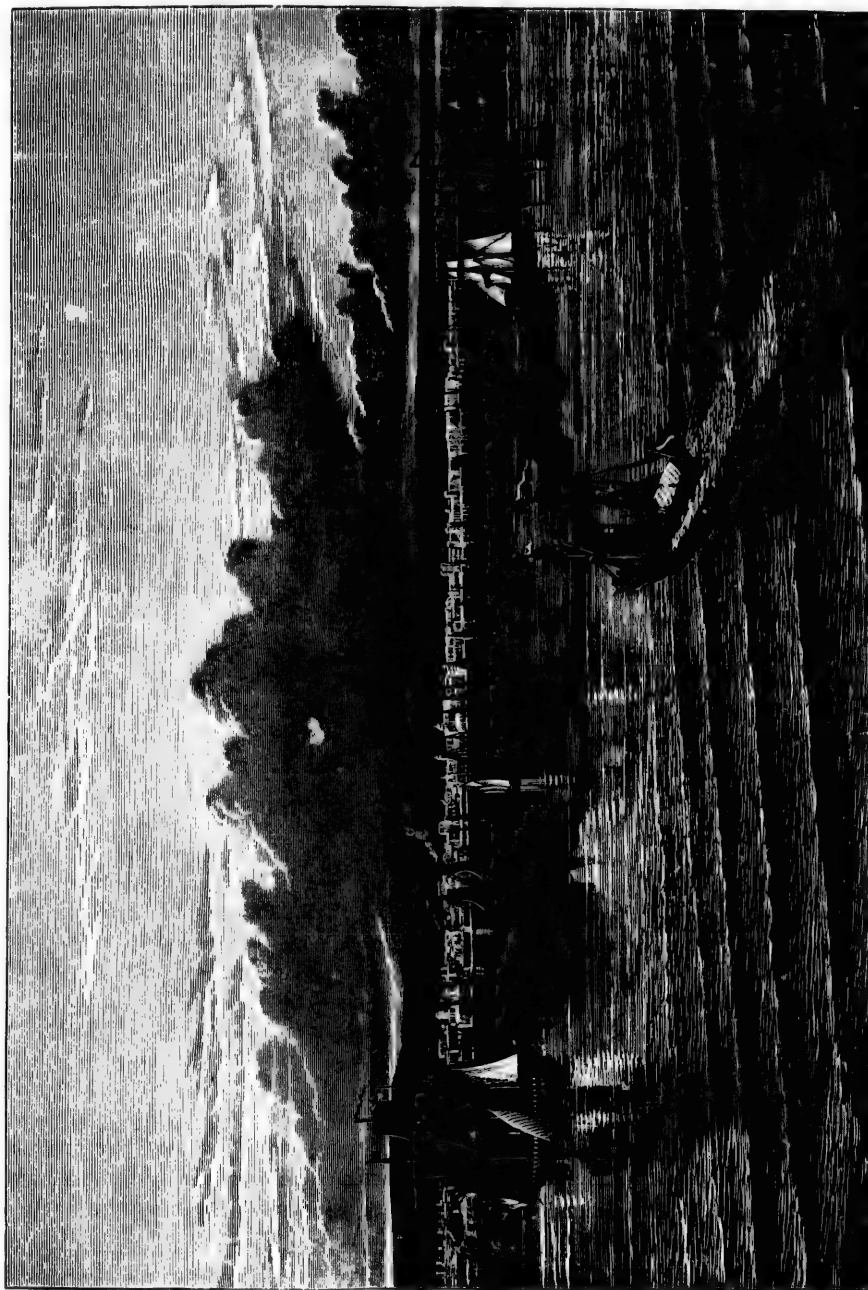
* Maria: "Compendio de la Historia de la Republica Oriental del Uruguay" (1864); Vaillant: "La Republica Oriental del Uruguay" (1873); Reyes: "Descripcion geografica del territorio de la Republica Oriental del Uruguay" (1859); Murray: "Travels in Uruguay" (1871); Palliere's: "River Plate Album" (1866); Consular Reports, 1875, 1876, 1877, the works of Horner, Grieben, and Sturtz, &c.

Parana and Uruguay flow in. For 900 miles from its embouchure near San Fernando, up to Tres Bocas, the river is navigable for steamers; higher up, small boats only can sail on it. The Paraguay, which joins the Parana at Tres Bocas, is navigable as far as the Cuyaba, near the city of the same name, the capital of the province of Matto Grosso, 1,100 miles above the city of Asuncion. The Uruguay at ordinary times is only navigable as far as Salto, but when the river is in flood steamers can ascend the rapids and sail far into Rio Grande. These are the main streams of the Argentine Republic and other "States of the River Plate." But it must be remembered that each of these rivers has tributaries, often navigable for long distances, and any one of which in Europe would be considered a great river. The average depth of the Rio de la Plata is eighteen feet; the greatest thirty-six feet. "The tide rises and falls," writes Mr. M. Mulhall, to whom we are indebted for these interesting facts, "regularly at Buenos Ayres, although the river is sometimes affected by strong winds. The South Atlantic tidal wave—twice every twenty-four hours—ascends the Plata, and is perceptible for over 100 miles up the Parana and Uruguay. It travels $258\frac{1}{2}$ miles in eleven hours forty-five minutes; it is about 16 inches at Buenos Ayres—the medium depth of water to Las Palmas being 10 feet, distance 64 miles—and ascends the Palmas, 55 miles, at the rate of 19 miles an hour; average depth of Palmas $38\frac{1}{2}$ feet. At new or full moon it is always high water at Buenos Ayres; generally when the moon is on the horizon it is high water, and low when she passes meridian. Soundings in the port of Buenos Ayres vary from 15 to $22\frac{1}{2}$ feet. The mean current of the River Plate seems to be 118 feet per minute on the surface, 103 at 4 feet depth, and 41 at the bottom." The Parana alone has more water than all the rivers of Europe put together. The scenery, though in some places monotonous, is yet very beautiful, especially in the upper reaches, where the river flows between rocky banks. One hundred and fifty leagues* above Corrientes—the "City of the Seven Currents," formed by as many projecting points of land just above the town—are the Falls of Guayra. In 1863 Lopez sent Colonel Platiño to explore them, and his report was as follows:—"At a distance of thirty miles a noise is heard like thunder. Even at three miles off it is difficult to hear any one speak. Some settlements had to be abandoned because the inhabitants became deaf. The whole region is in the hands of the wildest class of savages, and a miserable race of Indians." The river a little above the Falls is 13,000 feet across, "having more water than all the European waters collectively." This great mass—according to the descriptions of Azara, and confirmed by subsequent travellers—narrows to 200 feet, and falls at an angle of 50 degrees, a distance of nearly 60 feet. In the vicinity of the Falls continuous showers fall from the spray, which rises in columns at the moment when the waters strike the walls of the rocky gorge, and when the sunlight plays on it rainbows of the most lovely colours may be observed. It is computed by M. Revy that a million tons of water per minute, at a velocity of 40 miles per hour, falls over the precipice. The weight of this enormous flood falling

* In this part of the world, 1 vara is equal to 34 English inches, 1 cuadra to 150 varas, 40 cuadas to 1 league, and 1 square league to 6,500 English acres. For all ordinary purposes 12 cuadas may be taken as equal to an English mile. An arrobe is 25 lbs.; a quintal, 4 arrobes.

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VIEW OF THE CITY OF MONTEVIDEO, URUGUAY.

on the earth causes a kind of miniature earthquake. At Corrientes the same explorer considers that the Parana drains a basin of 500,000 square miles, and gains nothing in volume afterwards, as it loses by evaporation as much as it gains by the great tributaries which fall into it. The Paraguay is another of these. Like the Parana in its wilder parts, it flows past virgin forests, lovely isles, and great pampas, or, in the vicinity of the numerous little towns on its banks, by mandioca and yerba fields down to the water's edge, or country houses embosomed in orange-groves, seeming to the passing voyager the picture of peace, away from the busy world, and which, in reality, have been sacked by robbers and harassed by fire and sword. The scenery of the Uruguay is the finest in these regions, while it is reported that the Salado and Vermejo, which belong to the Gran Chaco Territory, are navigable, though as yet they have been most imperfectly explored.

So much for the rivers of this wide land. The *terra firma* is not less remarkable. Within the Argentine Republic alone we have an area of at least 555,700 square miles. The three "Platine Republics" cover nearly 1,400,000 square miles, and possess a population in all of less than three millions, or about two inhabitants to the square mile. Well might M. Vaillant declare that they are scarcely inhabited, for the population is out of all proportion to the extent of the land, the excellence of the climate, the capabilities of the soil for agriculture, its richness in minerals, and the unrivalled water-ways which it possesses for getting that produce out of the country—the River Plate and its tributaries alone draining one-half of the continent. The Argentine Republic may be roughly described as an almost unbroken plain, stretching—if we include Patagonia and the Gran Chaco—south to the Straits of Magellan, and the Argentines claim even to Cape Horn. Its frontier provinces thus comprise some which have attained a considerable degree of civilisation, and others which are yet steeped in barbarism and even unexplored. Buenos Ayres is equal to all the others collectively, in wealth, population, and importance. "The city of the same name is the seat of the National and Provincial Governments, and one of the principal seaports of South America. In the refinement of its society, progressive spirit of the people, and activity of trade and industry, it yields to no other city on the continent, and has earned the title of 'the Athens of the South.' Entre Rios and Santa Fé have of late years attracted much notice as sheep-farming countries. Cordoba, the heart of the interior, has received a great impulse from the Central Argentine Railway. San Juan and Catamarca are remarkable for their mineral wealth. Mendoza (pp. 220, 221, 224), at the foot of the Cordillera, formerly the chief city of the Cayo provinces, has emerged from the ruins of the earthquake of 1861. Santiago and the other northern provinces have been hitherto so isolated as to be almost valueless; but the navigation of the Vermejo and the new narrow-gauge railways will unite them, through Cordoba and Rosario, with the River Parana, the great artery of the Republic. The provinces called Littoral, from being adjacent to this river, have an immense advantage over the rest, possessing cheap freights and easy transit to Buenos Ayres and the commercial world." The census of 1869, which gave the population (exclusive of savages) at 1,877,490, does not at present actually represent the number of Argentine citizens or settlers, for since that period they have much increased, though it is probable that the disproportion of men to

women still continues (897,780 to 845,572). Of the population, 610,432 individuals were inhabitants of cities; 1,114,160 of the "camp," or country; and 12,330 lived either on the rivers or on islands in them. In the Republic, at that date, there were 211,993 foreigners—that is to say, people who were not born in the Republic or naturalised—the relative numbers being as follows:—Americans, Italians, Spaniards, French, English, Swiss, German, &c. The chief cities were—Buenos Ayres (Plate XXVII.), with nearly 300,000 inhabitants; Cordoba, 28,523; Rosario, 23,140; Tucuman, 17,438; Salta, 11,716; Corrientes, 11,218; and Santa Fé, 10,670.*

THE PEOPLE AND THEIR HISTORY.

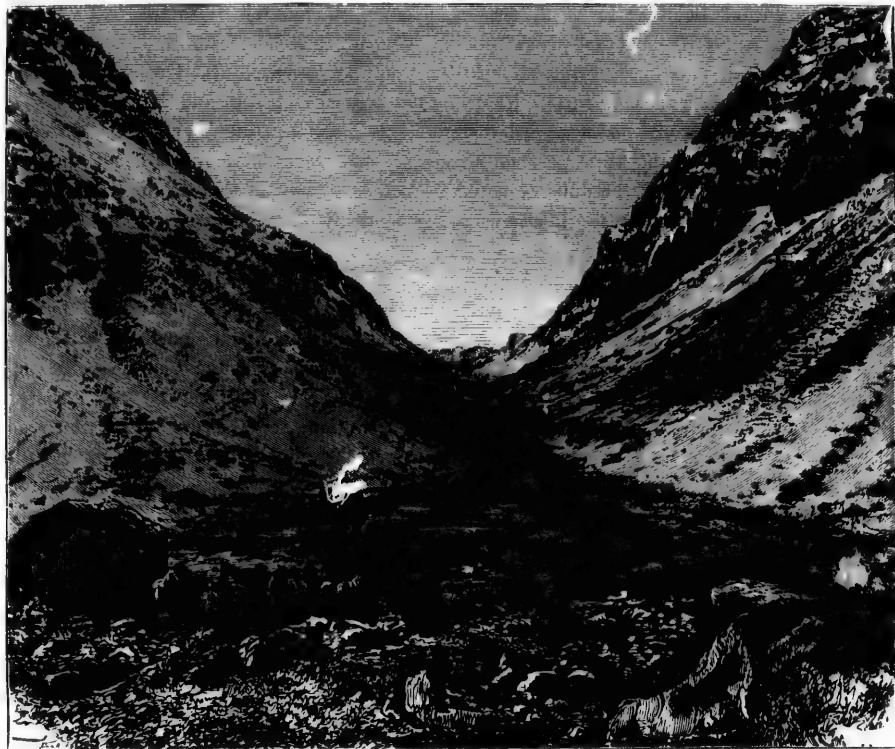
It is believed that the first of christened men who stumbled on the Rio de la Plata was Juan Dias de Solis, a Spanish mariner, with designs against the Molucca Islands. But Solis left his bones on the Uruguayan shore, and his seamen turned the prows of his vessels back to the Port of Lepe whence they had sailed. Ten years afterwards—in 1526—the famous Sebastian Gaboto—or Cabot—again entered the river of Solis. He was in search of a passage between the Atlantic and Pacific; but was forced to abandon his intention by want of provisions and one of those mutinies which seem to have been normal among the ill-disciplined adventurers who, in those days, manned vessels bound on such errands as Don Sebastiano's. The trinkets which he saw among the Indians made him eager to explore the gold-producing lands in the interior, whence they had obtained by barter with other tribes the metal so precious in his seamen's eyes.

But he never got much further advanced in his design than sailing some way up the Parana, Vermejo, and Paraguay, and calling the Great River into which they all flowed the Rio de la Plata—the River of Silver; for just as he was about to penetrate westward, a vessel, commanded by Don Diego Garcia, arrived in the river. This expedition was especially designed for the exploration of the country discovered so long before by Solis. "As was the custom among the conquistadores," the two commanders immediately fell a-quarrelling, and Don Diego sailed for Coruña; and, in case he might work him mischief at Court, Don Sebastian speedily followed his example. Before leaving, however, he founded the first European colony on the River Plate, by garrisoning the fortress of Santa Esperitu, which he had built. In 1535, a wealthy speculator—one Don Pedro de Mendoza—founded the city of Buenos Ayres, or, to speak more correctly, the villa of the *Santisima Trinidad*, which he called the Port *Santa Maria de Buenos Aires* (Saint Mary of the Good Airs). From that day, with varying but ever advancing fortunes, the Spaniards continued to form settlements in this region. Sometimes the Portuguese held the colonies for a time, but the

* The literature of the Argentine States is rather extensive. In the Appendix to Mulhall's "Handbook" will be found a list of the chief works. In addition to this admirable treatise, I have consulted, in the preparation of this sketch, correspondents possessing much private information, and the usual official and other statistical documents; as well as Napp's "Argentine Republic" (English edition, Buenos Ayres, 1876); Burmeister's "Physikalische Beschreibung der Argentinischen Republik" (1875); Beck-Bernard's "La République Argentine" (1872); Hadfield's "Brazil and the River Plate" (1877); Rickard's "The Mineral and other Resources of the Argentine Republic;" and other papers and works quoted.

Spaniards were not long in recovering possession and behaving after the usual Spanish method. That is to say, freedom of commerce was unknown; the colonists were of no account; all was reserved for the merchants of Cadiz or the traders in office from Madrid. Things were going on in this fashion, when, in 1806, an English army appeared in Buenos Ayres. Spain was just then an ally of Napoleon, and, therefore, an enemy of England. General Beresford soon carried all before him; the authorities presented the customary addresses, and everybody hurried, with suspicious avidity, to swear allegiance to King George. All seemed secure, when there was an uprising of the Creoles, and the English garrison was forced to surrender. Another English army sent out was not successful in retrieving the disaster of the first one. It, too, was defeated; and after allowing the colonists to experiment for a time with different Presidents of their own choice, the Junta of Seville sent out Marshal Baltazar Hidalgo de Cisneros as Viceroy of the Plata. But he had not well landed at Buenos Ayres before news came that the Junta had been dissolved, and, accordingly, with it disappeared the authority of the Viceroy. Then commenced civil war. The country got divided into a Spanish and a "patriot" party, who formed armies and fought each other after the method with which the world was soon to get familiarised in South America. Paraguay refused to join the movement, and declared herself independent, while Montevideo was rightly looked upon as a locality but indifferently enthusiastic in the "cause." To add to their disorder, the "caudillos," or guerilla leaders, refused to recognise the authority of the National Committee, and inoculated the country with that epidemic of civil war from which it has never since been altogether free. But, thanks to the efforts of Belgrano and Rondeau, so much of the country was in 1813 wrested from the Spaniards that something approaching to a regular constitution was drawn up by the "patriots." But reverses again overtook the insurgents, and it was not until San Martin and Alvear took charge of military affairs, and Admiral Brown had almost destroyed the Spanish fleet, that the La Plata people began to see blue sky again. On the 9th July, 1816, the United Provinces of the Plata proclaimed their complete independence, but soon after civil war broke out. By the beginning of 1820 the last "Director-General" was overthrown, and the Confederation was declared dissolved, and each of the provinces "received liberty to organise itself as it pleased. Thus was anarchy officially proclaimed." A new Republic was organised in 1825; but in less than two years each province went on its own way once more. A brief war with Brazil did not mend matters. The rival military chiefs took to shooting each other in their affected enthusiasm for a confederation of all the provinces, which chaos ended in 1829 by the Legislature of Buenos Ayres electing Juan Manuel Rosas, one of the commanders who had in this turmoil risen to the surface, Governor of the Provinces, and accorded him extraordinary powers. The name of this tyrant was for years one of terror in the Argentine Republic. Yet, during his first term of office he did not come out in the colours so familiar afterwards. On the contrary, he behaved respectably and declined re-election, and retired to the country. But he was only waiting his turn. His successors were apparently either weak or unfortunate men, for they had soon to retire. Then, in 1835, the country, wearied of this anarchy, offered Rosas the Dictatorship, and for the next twelve years this despot reigned—to use the expression

of one of the Argentine historians—"like a madman. Not much good was to be expected of him; but the worst fears of the wisest citizens were far surpassed by the tyrant who has for ever written his name in bloody characters upon the historical page of his country." Various attempts were made to displace him, but all in vain, until aided by the Emperor of Brazil, Justo De Urquiza, Governor of Entre Rios, defeated the Dictator at Monte-Caseros, on the 3rd of February, 1852, and forced him to flee to England, "leaving



VALLEY LEADING TO THE PASS OF USFALLATA, IN THE SECOND CHAIN OF THE CORDILLERA, NEAR MENDOZA, ARGENTINE REPUBLIC.

the city of Buenos Ayres," writes Mr. Parish, "in a delirium of joy at its sudden emancipation from his tyranny." Urquiza now became President of the whole Argentine Confederation, with the exception of the important province of Buenos Ayres. The latter raised an army, and after two battles was declared victorious. The National Government was then transferred from Parana to the present capital, and General Mitre elected President of the Republic as now constituted. Sarmiento succeeded Mitre; and in 1874 Avellaneda was elected to the Presidential chair, greatly to the benefit of the country, which may be pronounced as now possessing that profound peace and harmony

which, with a few exceptions, it has been fortunate to enjoy since the close of the Paraguayan war. It is true that, in addition to several minor affairs of the same kind, there was an armed revolt during the heat of the electoral struggle which put Avellaneda into power, and that there have been several threatened invasions of Indians from the Plains. But these are really trifles in South America, and the historian would be hypercritically ungenerous who would dwell too long upon such incidents. Indeed, Major Melchert, an Argentine warrior, will insist that such a condition of things is much to the honour of South America in general, and to his country in particular. "So far from the frequent civil wars being discreditable, it would be difficult for it to be otherwise, unless the human race itself were changed; as it appears only natural that, in a country emancipated and suddenly delivered to its own guidance, men of note and desirous of glory, who for the most part had distinguished themselves as soldiers in the War of Independence, should form parties among their personal adherents, and struggle to perpetuate themselves in power." This view of the duty of a public man is so unique that it would be a pity to spoil it by any comment, for it affords a key to many of the troubles of the Hispano-American Republics.

The present Constitution of the Argentine Confederation is in outline as follows:—The fourteen provinces elect 133 representatives, who, in their turn, elect a President for six years. The Legislature consists of a Congress, consisting of a Senate numbering twenty-eight, and a House of Deputies numbering fifty; each member of the Congress receiving £700 per annum. There is also a Vice-President, who is President of the Senate; and in other respects the provisions of the Constitution, for the due performance of their duties, are much the same as those in the United States document of the same description. The members are appointed by the President, who is also commander-in-chief of the troops; the governors of the provinces are elected by the people for a term of three years, and are to a certain extent independent of the Central Government, being invested with powers which are not unfrequently abused. There is freedom of conscience, but the second article of the Constitution expressly stipulates that "The Federal Government shall maintain the Apostolic Roman Catholic Faith." Article 29, wisely taking warning from the past, provides that "Congress cannot grant to the executive, nor to the provincial legislatures, any extraordinary faculties," nor the "sum of the public power," nor "renunciations or supremacies, by which the lives, honour, or fortune of the Argentines shall be at the mercy of any Government or person whatever. Acts of this nature shall be irremediably null and void, and shall subject those who frame, vote, or sign them to the pains and penalties incurred by those who are infamous traitors to their country." Article 32. "The Federal Congress shall not dictate laws restricting the liberty of the press, nor establish any federal jurisdiction over it." Article 35 (the last) stipulates that "the names which have been successively adopted for the nation, since the year 1810 up to the present time—viz.: The United Provinces of the Rio de la Plata, Argentine Republic, and Argentine Confederation—shall henceforward serve without distinction officially to designate the Government and territory of the Provinces; whilst the words Argentine Nation shall be employed in the making and sanction of the laws."

We have already noted the difficulty of arriving at anything like an accurate census either of the population or area of the Republic, simply because the boundaries of the country are so imperfectly determined. According to the census of 1869—as already noted—the population of the country, including savages, was 2,736,922, exclusive of these—1,877,490—the whole area of the provinces being 515,700 English square miles. These are as follows:—Littoral or Riverine Provinces—Buenos Ayres, Santa Fé, Entre Rios, and Corrientes; Provinces contiguous to the Andes—Rioja, Catamarca, San Juan, Mendoza; Central Provinces—Cordova, San Luiz, Santiago del Estero, Tucuman and North Provinces—Salta and Jujuy. The calculation of Dr. Burmeister,* however, is somewhat different, but for our purposes this will suffice. The savage Indians who wander over the national territories of Gran Chaco, Misiones, Pampa, and Patagonia, number, according to the census, 93,291; but it is evident that this can only be a rough estimate. Immigration has, however, within the last few years greatly increased the inhabitants of the Argentine Republic, the number of arrivals having, during the years between 1863 and 1876, varied from 10,408 to 79,712. In the latter year they fell off to 30,965. Of these, the greater number were natives of Italy, Spain, and France, and the remainder of Great Britain, Switzerland, Germany, and other localities. The English are, however, found in the Argentine Republic in great numbers. At present it is estimated that in the province of Buenos Ayres alone there are 30,000† Englishmen, or men of British descent, chiefly farmers, whose property in the aggregate is worth several millions sterling. Herr Napp justly remarks that, as regards the origin of the people in all the River provinces, except Corrientes, the majority of them are of European descent. In the interior, especially in Santiago and Catamarca, the Indian blood is more visible. The population is, however, recognised as having to a considerable extent as its basis the mixed descendants of the conquistadores and the aboriginal tribes of the country. The negroes originally imported as slaves have also contributed their share to the general mixture of races; while the large immigration from the Mediterranean countries has naturally had its effect upon the character—moral, mental, and physical—of the Argentines. New arrivals are not, as in most other Spanish countries, looked on with indifference or even dislike. Great hospitality always awaits them, especially in the interior, where Old World life and virtues are more persistent among the people than in regions nearer the seats of civilisation. “As yet,” writes an Argentine, “you find there that old hospitality of which mention is made in the Old Testament, and men who are untiring in all kinds of fatigues, and models of magnanimity, love of country, and valour. The last quality, in particular, could not be more lively nor more general in any other people. The sons of the Argentine Republic, in all the circumstances of life, manifest a supreme disdain of death; and this same virtue—where the customs and habits are corrupt—sometimes causes but small esteem of the life of their neighbours.”

The Argentine women are in disposition lively, and, though not without the faults of their race, are generally good mothers, and occupy a position of no little influence

* “*Physikalische Beschreibung der Argentinischen Republik.*” Vol. I. p. 290.

† Mulhall: “*The English in South America*” (1878), p. 335.

in society. The young people soon mature, and accordingly, at an age when in Europe his contemporaries would be at school, the Argentine is engaged in affairs of State, an "in" or an "out," or laying the foundation for a home and a future. Vanity, an overweening idea of their own importance in the world, an inability to brook the rule of the majority, and a general tendency to rodomontade, may be noted as some of the defects under which the Argentines, like most young nations, labour. "The Argentine is always benevolent and affable with foreigners; that brusque nativism which, in a part of North America* treats the immigrants, and even their descendants born in the United States, as insignificant intruders, is unknown in this Republic. On the contrary, foreigners occupy a distinguished position here, and are eligible to almost all public posts, whether Municipal, Provincial, or National. The well-educated foreigner has access to all circles and families, and the labourer is received with much kindness. The formation of classes and castes has not been possible among a people so democratic as the Argentines. Everybody possesses the same rights, not only in public but also in social life. Not even the aristocracy of money has found a propitious soil here: whilst, on the contrary, a true worship is dedicated to intellectual aristocracy—nevertheless, without yielding to it any privileged post or extraordinary rights; for the Argentine is proud: he spontaneously recognises intellectual superiority, but does not forget his own merit." The real meaning of this eulogy of Mr. Napp is, we suppose, that the Argentine is quite willing to honour brains in the abstract, but that when it attempts to exercise its legitimate rights of gaining for its possessor the privilege of ruling, the proprietor of the soil declines to acknowledge its claims in the concrete.

Though Spanish is the national language, yet in some parts of the country—more especially in Corrientes—the old Guarani has not yet been entirely abandoned. English and French are taught in all the secondary schools, and German has of late years also asserted its claims to be studied. Germans, indeed, are fast becoming an important element in the Argentine Republic, since several of the professors in the University of Cordoba, and in the Gymnasias and colleges, are of that nationality. The inhabitants of the towns are gay. Old and young alike join in all amusements, and French and Italian music is cultivated. But the inhabitant of the boundless Pampas is a more sedate individual. He seems impressed by his surroundings, and to have transferred this influence to all his movements. Even his music is different, for, instead of foreign airs, the only melody heard in the vicinity of the estancias is the "monotonous improvisation of the *Gaacho cantor*, accompanied by his guitar" (p. 217).

At the census of 1869, nearly one-third of the population belonged to cities. The Republic had then one city (Buenos Ayres) with about 180,000 inhabitants; two cities with from 20,000 to 30,000; five cities with from 10,000 to 20,000; twenty-two with from 3,000 to 10,000; sixty-seven towns with from 1,000 to 3,000; and seventy villages with less than 1,000 inhabitants. The fourteen capitals of provinces held 205,143 inhabitants, or excluding Buenos Ayres, the other thirteen united had only 127,354. Next to Buenos Ayres, Cordoba contained the greatest number, viz.,

* Mexico, we presume; or can it be the United States?

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A "GAUCHO CANTOR," OR HERDSMAN GUITAR-PLAYER OF THE PAMPAS.

28,523, but of late years Rosario, in the province of Santa Fé, has become the second city in the Republic.*

In twenty years some of the provinces, such as Buenos Ayres, Entre Rios, and Santa Fé, have doubled their populations. Of foreigners in the country, the Italians are by far the most numerous, South America having for years been the El Dorado of this race. The Spaniards are less than half the number of the Italians, though there are nearly as many Frenchmen as Spaniards, and about the same number of English and Germans (including Swiss) not born in the country.

The citizens of the United States are comparatively few; but in energy and influence they make up for the numerical unimportance.

THE COMMERCE OF THE PAMPAS.

Wool, hides, and tallow are the staple products of this grassy land. In the province of Buenos Ayres there were, at the date of the last census, above 45,000,000 sheep, and the annual yield of wool is over 160,000,000 lbs., or somewhat less than the total clip of Australia. All this has been accomplished within a comparatively short space of time; and were more attention paid to the improvement of the breed of sheep the return could be still further increased. The quantity of sheep in the Republic is estimated at 57,546,448 animals, and their value at £16,840,874. Some little attention has been paid to the rearing of llamas, especially in the province of Jujuy, where are 16,000, valued at £8,000; but it is likely that in time both they and alpacas will be more extensively bred in the pampas of Buenos Ayres. The vicuña is not bred, but, on the contrary, in some parts of the country, such as in the province of Catamarca, where it still exists in considerable flocks, it is hunted as a wild beast. At certain seasons of the year, when the animals have most wool, great battues are organised for their systematic butchery, only to despoil them of their wool, employed in the making of fine shawls, one of which is worth from £20 to £40. Goats are extensively bred. The goatskins of Aconquija are in great request for saddle-covers. The goats of Tucuman are also held in much esteem; and it is believed that a cross between them and the Angora animals—which, as well as those of Tibet, have been introduced—would result in a breed surpassing in merit any at present known. Hogs prosper well, but the supply is insufficient for the demands of the country. The actual number of goats, according to the latest census, is 2,863,227, and that of pigs 257,368. Domestic fowls are dear and scarce. Eggs will often cost 4d. apiece; and a full-grown fowl brings in the cities from 4s. to 6s. Game is abundant. Wild fowl swarm on the solitary waters, and partridges come and feast in great droves on the plains; but quadrupeds are fewer, though in some districts, deer, the pampa hare, guanacos, armadillos, tapirs, &c., are found; while pumas—"tigers"—invite the bolder sportsman; and the pursuit of the Nandu ostrich (*Rhea Americana*) is, according to the official historian of the Republic, "an insatiable pleasure to the hunter on horseback." Fresh-water fish is abundant; but, as happens in most Roman Catholic countries of South America, large quantities—dried, pickled, and preserved

* Napp: "The Argentine Republic," pp. 29-32.

in oil—are imported for use during the fasts of the Church. As there are no legislative enactments in regard to the chase and fisheries, the chances are that if the Republic does not look to the matter the wild animals of the country will speedily be exterminated.

Horses exist in enormous quantities. The horse is the inseparable companion of the gaucho, or cattle herd, and is equally necessary in keeping up communication with a people so widely scattered as are those of the Argentine Republic. The horse, it is needless to remind the reader, was introduced into America by the Spaniards. The first which were seen in the Argentine region were introduced by Don Pedro de Mendoza, who also brought cattle, goats, sheep-goats, and dogs. But hunger compelled the colonists to eat their stock before they got thoroughly naturalised. Alvar Nunez—better known as Cabeza de Vaca (Cow's Head)—has the honour of having introduced the progenitors of the present countless herds and droves which pasture over the great plains of the River Plate region. By neglect the horse has, however, greatly deteriorated in the Pampas; and though here and there a more thoughtful estanciero has done something to introduce better blood, yet throughout the greater part of the Republic there is among the native horses little trace of the famous Andalusian steeds from which the "thousand horse—the wild and free"—undoubtedly sprang. The season of birth is unfavourable to the foals. They are produced in the winter months, before the tender autumn grass is ready for them, and the mares, from insufficient nourishment, have but little milk; but were greater care taken in this matter—as in the United States—the result would soon be evident in the greatly increased and improved animals. The number of horses and mares in the Argentine Republic is about 3,060,331, of a total value of £3,520,435. In the interior provinces the mule has almost taken the place of the horse in the Littoral regions, and great numbers are exported. The ass is, of course, also found in considerable numbers (266,927), and, with the mules (132,125), is extensively employed as a draught animal, a beast of burden, and even a saddle animal, albeit the breed of donkeys is rather poor. Next to sheep, cattle breeding is the great business of the Argentines. In no part of the world are there so many horned cattle, though butter, cheese, and milk are so scarce that not enough of the two former is made for the use of the cities, large sums being sent abroad to purchase what under proper management ought to be exported from most of the River Plate country.

The stock on a cattle estancia is often as many as 10,000, divided into herds of 2,000 or 3,000 each, which two men can easily manage. In Buenos Ayres, Mr. Mulhall sets down the number of cattle at 6,000,000, and in the official statistics of the whole Republic they are given at 13,993,090, representing a value of more than £17,000,000. Formerly, cattle rearing was not considered profitable, though of late years views have changed on that question, since it has been found that, if properly attended, it will give from twenty to thirty per cent. return on the capital invested. In seasons of drought the cattle have to be watered by means of a *bolle sin fondo*, which raises water from a well, and is worked by a man on horseback. It can water 2,000 cattle in a day. Herds of cattle, from 1,000 upwards, can be bought at from 16s. to 25s. per head. Land is now so high in the sheep-farming districts that the cattle estanciero must seek land, sometimes in disagreeable proximity to the Indian haunts; hence, for this and other reasons, cattle rearing is not much in favour with foreign residents. "The rich estancieros," writes Mr.

Mulhall, "usually live in the city, in great fashion and luxury, leaving their establishments in charge of a 'major domo,' and going out once or twice in the year to see how things are going on. The 'gauchos' live in wretched 'ranchos,' of which the sides are plastered with mud, and the roof of 'paja,' or reeds that grow in the lagoons. The furniture consists of a wooden stool or bench, a few horses' or cows' heads that are used for seats, and a cow-hide stretched on stakes, which serves as the family bed. The cooking is done in the open air with an 'asador,' or spit, that is stuck in the ground. The most important piece of furniture is the 'recado,' or native saddle, which is very complicated, and consists of trappings that often serve the 'gaucho' for his bed." Could some method be devised of preparing beef for the English market, which would produce a



THE "ALAMEDA," OR CHIEF PROMENADE OF MENDOZA, ARGENTINE REPUBLIC.*

palatable and therefore saleable article, the cattle trade of La Plata would increase enormously. Hitherto, however, boiling down the beef for the manufacture of the meat "Extract," sun-drying, and salting, as well as collecting the tallow and the hides, are the main profits which an estanciero can see his way to obtain from his horned riches. Fat cattle

* Mendoza was founded 300 years ago, but the old city was destroyed by an earthquake in 1861, and the present one is built over its ruins. Previous to that terrible catastrophe of the 20th March the town had a population of 15,000, of whom probably not over 3,000 escaped. When the shock threw the city into ruins, most of the people were at vespers; hence the destruction of life was much greater than it would have been on ordinary occasions. Fires raged for eight days, and marauders from the surrounding country occupied themselves with plunder, instead of rescuing the survivors from the ruins. Among those who perished was Brivard, the French geologist, who had predicted that before long the place would be destroyed in this manner. So complete was the wreck that the very course of the streets could not be traced: even in Buenos Ayres, 700 miles distant, the shock was slightly felt. Under the shadows of the Andes, close to the Uspallata Pass (p. 213), it was a favourite halting-place with trans-continental travellers before steamers were established between Europe

are purchased for consumption in the cities, or more frequently for the large salting establishments, or *saladeros*. In the first case the hides are stretched on scaffolding to dry. They are then despatched to the produce depôts, or *barracas*, where they are passed through a poisonous solution to preserve them from moths and worms, and then exported. Meantime the tallow and other spare grease is tried out in steam boilers, and then run off into half barrels or pipes for embarkation to a foreign market.



A STREET IN MENDOZA, ARGENTINE REPUBLIC.

In the *saladeros* both cattle, sheep, and horses are killed. In some of the large ones—such as those at Barracas—as many as 10,000 cows and mares have been slaughtered

and Chile, and in the old writers we have pleasant idyllic pictures of the evenings on the Alameda with Mendoza beauties, or praises of the magnificent panorama in which Trepungato, with its eternal snows, forms so striking an object. However, few people, nowadays, cross the easy Uspallata Pass through the Andes into Chile. The streets of Mendoza are traversed by the Zanjón, a canal drawn from the river Mendoza by the foresight of the old Indian inhabitants of this region prior to the conquest. Small aqueducts branch off from it in all directions for the water supply of the houses and gardens, except in the higher suburbs on the western side, where a reservoir is kept, from which supplies for domestic uses are drawn. Mineral and thermal springs and baths are some of the other attractions of this out-of-the-world Andean town (*Mulhall*).

in a day in the busy season. So smartly does the work go on, that in a few hours a comparatively small number of peons will slaughter, cut up, salt, and otherwise prepare 500 head of cattle. The meat is first cut up into thin strips, and piled in large heaps with salt. It is afterwards dried upon scaffolds, and is then known in commerce as *carne tasajo*. It is to an uneducated palate a by no means pleasant article of food; but in Brazil and Cuba, where it is used to feed the slaves, it finds a ready market. *Charque dulce*, the "jerked beef" of commerce, in which it has of late years been seen, is prepared by merely sun-drying the strips of flesh. It makes, when properly cooked, a not untoothsome dish, and it is much more nutritious than the *carne tasajo*. In order to obtain the grease whole carcasses are thrown into the boilers, the bones and the fat being the only portions saved in this wasteful process. But nothing else can be done with the superfluous cattle, unless to boil them down for the preparation of the well-known extract. Even then a surplus of stock remains, the problem of utilising the beef of the River Plate provinces waiting yet to be solved, and certain it is that the lucky individual who can do so will reap no stinted reward for his skill. Mares are never used in this country as draught or saddle animals. Accordingly, they also are sent to the *saladeros* for the sake of their grease and their hides, the former being known in commerce as *animal oil*, and the latter being highly esteemed as the raw material for carriage-leather. Sheep are also boiled down, but principally in the "grease foundries." The sheep is stripped of its skin, "and the whole carcase thrown into the grease-boiler, to procure the suet and grease. The cooked carcasses serve afterwards for fuel, which is an improvement on the old method, when it was nothing extraordinary to fire the boilers with whole animals scarcely dead." The wool exported from the Argentine provinces is entirely unwashed, for there are no large establishments for cleaning it. It is first—after being classified in the *barracas*—pressed into bundles weighing from seven to nine hundred pounds for convenient storage on shipboard. The sheepskins are in like manner pressed into bales, and are almost all sent to France.

It is thus evident that the River Plate States are at present in the crude—almost hunter—condition of commerce. They export their wool and yet have no woollen-mills, for labour is too dear, and the population too scattered for them to be able to compete successfully with those of the United States, Canada, and Europe. Accordingly, the Argentines import their wool in the shape of cloth. They have, again, a superabundance of hides, and plenty of tanning materials, yet they send both out of their ports, to be brought back in the shape of leather. Salt could be exported from the River Plate; but for much the same reasons as those which have checked other manufactures, none is prepared in the country, and the *saladeros* import immense quantities from Spain. In the same way the other products of the country are, perhaps, necessarily inutilized, and must be neglected for some time to come, if the Republic will insist on copying the vicious fiscal system of the United States by the imposition of "protective duties"—duties which have even seriously injured the United States, and will, of course, ruin a country like the Argentine Republic, where, in the words of Herr Napp, from whom we obtain the information condensed in the preceding pages, the only thing "wanting to progress is immigration—always immigration!"

MONETARY MATTERS.

The revenue of the Argentine Government for 1870 is calculated at 16,869,000 dollars, and the expenditure at 16,758,000 dollars, all in gold, or "pesos fuertes," or "duros," a very different kind of currency, as we shall presently see, from the paper-money in circulation throughout the Republic of the Silver River. This, though a rather higher estimate than in any previous financial year, is, if capable of being carried out, a more hopeful one; for, for long past, the income of the Argentine Confederation has been unequal to its expenditure. In 1876, indeed, the one was just about double the other. The sources of revenue are chiefly import duties. Then come export and warehouse duties, stamps, telegraphs, post-office, railways, &c., while war, and the suppression of occasional civil broils, next to the payment of interest on their debts—and they do pay—swallow more than one-half of the taxes. This is, however, only the Federal revenue, for every State has its own budget; that of Buenos Ayres alone dealing annually with more than one million pounds sterling. None of the Provinces, with the exception of Buenos Ayres, Entre Rios, and Santa Fé, have any foreign debts. The Republic has, however, not omitted to increase its difficulties in this favourite direction. In 1876—the latest return to which I have access, and I believe, that on the whole, it fairly represents the financial *status quo*—the total foreign debt of the Argentines, was 42,314,253 "hard" dollars—or £8,462,850, while the internal liabilities were £3,997,509, the interest on the foreign loans being paid in gold, though the home creditors have to accept theirs in paper. There is also a considerable floating debt in the shape of Treasury bills, loans made by the Provincial Bank, &c., but, as a rule, it may be said that the Argentine finances are not in an unhealthy condition, though its system of raising a revenue is undoubtedly its weak point. Being almost wholly dependent on Custom House dues, it is liable to be affected by every commercial crisis, and fluctuates up and down according as the merchants import or export goods. This is, of course, the case more or less in every country; but in the Argentine Republic, where the jealousy of the Provincial Governments prevent the National Treasury imposing any taxes on the country under their control, this is especially true, nor do we see that until some further revenue can be drawn from the State lands, or the relations of the Provincial Governments to the Federal one is put on another footing, that there will ever be much alteration in the present state of affairs. There is—in a word—not much likelihood of the Treasury in Buenos Ayres getting in a good year a surplus sufficient to tide over a bad one. Accordingly, there is nothing for it but to seek another foreign loan, allow all development to be suddenly paralysed, or to become bankrupt, a contingency which, in the present state of affairs, does not seem very remote. Hitherto, however, Argentina has paid punctually, and though it does not do to be too confident in such matters, it is pleasant to the historian of "embarrassed" States to encounter some little variety in the stories of South American finance; national defalcation becomes, after a time, sadly monotonous.

The Argentine Republic has really no money of a national character. In the Upper Provinces nearly all transactions are done in the depreciated Bolivian dollar, the value

of which fluctuates now on one side, now on the other, of three shillings; but though, for convenience sake, the *patacon*, or hard dollar, is taken as a monetary unit, yet it is a coin representing a fictitious value, and is, indeed, rarely seen in the country. At one time, some of the Provinces had mints; but, by the present constitution, they have no right to coin money. There must almost necessarily be foreign silver in circulation through the country, still further intensifying the confusion which prevails. In reality, however, most transactions are carried on in the *papel moneda corriente*, or paper money issued by the Bank of Buenos Ayres. The dollar, in this currency, is worth about twopence. In addition to foreign coins, the interior is, as we have seen, flooded with Bolivian dollars, as well as the notes of various provincial banks, which are generally in Bolivian



RUINS OF THE CHURCH OF SAN DOMINGO, MENDOZA, ARGENTINE REPUBLIC.

values, with the exception of those of the National Bank, which only issues bills in hard dollars. The Buenos Ayres paper dollar is in reality the real money of the Argentine Republic, and of late has obtained more public confidence on account of a bureau having been established, whereby it can be at all times exchanged at the rate of 25 *pesos* current for one hard dollar. Though now stationary at a value of about twopence, this was not always so. Fifty or sixty years ago, a dollar meant something over four shillings, as well on the shores of the Plata as on the banks of the Hudson. But in an evil hour, the Buenos Ayres Bank became "nationalised," and got so under the control of the Government as to be compelled to grant almost any accommodation required. As the Buenos Ayres Ministry were always requiring accommodation, in time the resources of the bank were insufficient to meet the demand on it in good coin. Accordingly, the wants of the Government increasing, the bank began to increase its issues, until these reached an amount out of all proportion to its real capital. For a time, even this

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VIEW NEAR ST. NICOLAS BAY. BRUNSWICK PENINSULA, PATAGONIA.

might have been got over, had not the Government interfered, and passed a law declaring the notes a legal tender for their nominal value, and relieving the bank of all obligation to pay them in specie on demand. The result of this was, not unnaturally, that the bank's credit dropped to the lowest ebb, and the notes became proportionately depreciated. In three years, between 1825 and 1828, the dollar fell in value from 4s. 2d. to 1s. The war with Brazil terminated; but the dollar, in spite of a heroic effort to regain



A "DILIGENCE" ARRIVING IN THE SUBURBS OF MENDOZA, ARGENTINE REPUBLIC.

its former standing, succeeded in reaching only a precarious value of 2s. Left to itself, it again dwindled away down to 6d., and then to 4d., until, finally, its best friends began to think that the poor scrap of paper looked cheerful when it was quoted at 2½d. Still, the people were not content. On the American continent, North and South, there exists a strange idea that money is worth something more than what those who buy it as a convenient medium of barter choose to give for it. There is no "making money plentiful" or "cheap," and so, when in answer to a cry for "more money," the Government flooded the country with this inconvertible currency, it was perfectly evident that the dollar could stand no more bleeding. When it got down to 1½d., it was concluded that by-

and-by the once respectable representative of the banking credit of Buenos Ayres would only be worth the paper it was printed on, or the value which a not over fastidious collector might attach to the autograph of the cashier of the National Bank. Another evil consisted in the continual fluctuations in the price of gold which this caused. Of course, it happened that when paper went down gold went up, as we were so long familiar with in the case of "greenbacks" in the United States. Legitimate commerce was, therefore, often at a standstill, and the merchants were compelled, for want of anything better to do, to rub shoulders in the Bolsa with the crowds of gamblers who were speculating in "ounces" or doubloons. "How are ounces?" used to be a common question, when one man met another in Buenos Ayres.* To put an end, if possible, to these mischievous fluctuations, Congress passed a law in 1875, the tendency of which will be to make money more stable, by issuing a coinage of determinate value. Its actual operations are, however, still in the far future, and the "peso fuerto" will for long be only known on paper, and in accounts intended for foreign perusal.

There is an Argentine standing army—small, though disproportionately great to the number of the people—a militia and a national guard, which probably contains within its midst as choice a collection of desperadoes as the world could desire *not* to make the acquaintance of. The Confederation has also over twenty steamers, including two ironclads, manned by upwards of 3,000 officers, sailors, artillerymen, and marines. Of late years, the Argentine Republic has not been importing so much as it did; while the exports—chiefly wool, tallow, and hides—are increasing. Most of the trade is with France and Great Britain, Britain sending in return for the Argentine staples cotton, woollens, and iron. Railways are gradually extending over the country, revolutionising the entire political and commercial habits of the people, though many years must elapse ere communications of the kind can reach the remoter districts. But, until this is the case, the Argentine Republic will not be fully developed, nor its great pampas peopled with the millions of men, cattle, and sheep they are capable of supporting.

The Argentine Republic, with the exception of the mining districts on the north-west of the Republic, on the Bolivian frontier, the agricultural district of Chivilcoy, in the north of the province of Buenos Ayres, and the Welsh settlements in northern Patagonia, is essentially a pastoral country. Indeed, it has been doubted whether the Pampas are fitted for tillage. This question we shall allude to more particularly. Meantime, the land, except in the remoter parts of the country, is occupied by the necessities of the great cattle and sheep runs, and the new comers must seek remote, though probably—as far as the pastoral capabilities of the country are concerned—even better localities than those now taken up. Unfortunately, however, over much of that country the Indians still lord it, or threaten to do so, to such an extent as to practically make it a tabooed land to those who value life, limb, and property. Except a comparatively small narrow neck of land separating the Chaco Indians from those of the Pampas, these wild people roam over all the great plains of Patagonia through the Chaco into Paraguay and Bolivia. Indeed, in the neighbourhood of Frayle Muerto, or Belleville, many

* Hinchliff, *ib. cit.*, p. 52.

Englishmen who established themselves as cattle farmers have been forced to turn their attention to sheep and agriculture, as offering less inducement to the Indian marauders. North of Frayle Muerto, Switzers, Germans, Frenchmen, Italians, Englishmen, and Anglo-Americans are gradually establishing themselves, in spite of the raids of the Indians, and the even more fatal ravages of locusts. The Chaco tribes, before the arrival of the Spaniards, to some extent supported themselves by agriculture, and were not so nomadic as those farther to the south; yet, at the present date, they are among the most intractable aborigines of the American continent. The Pampas Indians are less ungovernable, for they submit to their chiefs, and determine their policy in accordance with the dictates of their ruler; yet, for years the region between the Indian country and the settled portions of Buenos Ayres has been the scene of continual bloodshed, the very discipline of the Pampas Indians enabling them to unite in considerable armies, and thus more effectually harass the unfortunate *estancieros*. The relations of the Argentine Government with the Indians have been most deplorable; while the surroundings of the Gaucho, or Argentine peasant, is such as to make him sometimes as dangerous to his white neighbours and his fellow citizens as the Indians. "He has," writes Mr. Frank Parish, "been constantly subject to conscription for service in the army engaged in foreign or civil wars, leaving in the frontier districts his home defenceless against the depredations of the savages. It is true that the Gauchos may be said to be the primary cause of the civil wars which have devastated the country, for, despising—or at least not appreciating—their constitutional influence, they have been accustomed to regard war as a normal means of subsistence, and to be used as such for its own sake. Nevertheless, in face of the peculiar hardship of the condition of these men, even though in the aggregate self-inflicted, it is scarcely surprising that immigrants are occasionally subjected to annoyances and dangers through a spirit of hostility engendered by feelings of envy, as the Gaucho is subjected to the conscription, whilst the foreigner is undisturbed in his industrial occupations. Families have fallen victims to the sudden outburst of animosity on the part of the Gauchos, who, when once roused, have been as cruel as the Indians; and though the arguments which have been pleaded in extenuation for the latter cannot be applied to the former, their condition is a practical evil, and enlightened legislation for these frontier districts is one of the urgent necessities of the country." The Paraguayan war, and the civil broil with the province of Entre Rios, exhausted the Government resources, so that the frontier line of defences against the Indians was left almost undefended. The Pampas tribes, accustomed to scour the country in search of game, took advantage of this state of matters to attack the civilised districts, in order to supply themselves with the necessities which, owing to their improvident mode of life and the absence of agricultural pursuits among them, they found themselves in want of. Still the English sheep farmers of the Sierra Ventana slopes hold their own, in the midst of the Indian country, by dint of tact, Snider rifles, and the greater attractions which the cattle runs of the north have for the brown horsemen. On the Rio Negro, English settlers grew excellent crops; but south of this, Patagonia, as a whole, deserves the description which Guerara—as quoted by Mr. Parish—erroneously gives to all the region south of the River Plate: "a barren land, without timber for building without

firewood, without water, without soil to receive seed, and without anything that a city requires for its maintenance." Yet, as we shall see, this country is not so entirely unsuited to the wants of civilised men, for on the banks of the Chupat River a Welsh colony established itself in 1865, and is prospering in a quiet subdued way, though at first the settlers suffered terrible hardships, and had to be succoured by the Argentine Government. It may, however, be added that so far from the Patagonians injuring them, the colonists would have absolutely died for want of food had not the Tehuelche Indians out of their generosity supplied their needs. Finally, to enumerate the outposts of the Argentine Republic, at Santa Cruz River there is a military establishment, which at a later date in our literary travels we shall pass on our way south, before we double Cape Horn and the Land of Fire.

CHAPTER XV.

THE PAMPAS: MEN AND MANNERS.

THE student who would see the men and manners of the Argentine Republic must not seek them in cities. Towns all the world over are apt to be the same. The men and women in them conform to the conventionalities of "society," and "society," from China to Peru, is tyrannised by the dicta of the tailor, the mantua-maker, and the dancing-master. As years roll on, the etiquette of one city approaches that of another still older, and all of them eventually take their inspirations from Paris as the capital of polite people, good cooks, and makers of civilised raiment. In cities also congregate foreigners who keep up the customs of their own countries, but take something from, and give something to, the natives of the country and the other foreigners by whom they are surrounded. In cities, likewise, there is a want of individuality. The people cease to a great extent to think for themselves, and do, not what is good in their own eyes, but in the eyes of their neighbours. They take their ideas of right and wrong from somebody else, just as they accept their politics from the newspaper which they read. In the country it is generally different, and the less thickly peopled the region the greater is the individuality, eccentricity, or by whatever other name, peculiarity of manner, originality of ideas, and a general roundness in men and their surroundings, are called. This is a marked characteristic of the true American. The people of the United States owe much of their peculiarities to several facts. In the first place the original settlers were necessarily men of enterprise, boldness of invention, and individuality of thought. In the struggle with nature, the survival of the fittest is the usual law: the strongest succeed, and the weakest go to the wall. These qualities were in the United States intensified by the life of the early settlers, and were of course transmitted to their descendants. Their fathers, the Puritans, had a brave but dangerous habit of speaking out their minds, and of laying their legs over a log in the backwoods as they spoke it. Their descendants in New England have got over the log cabin stage of existence, but are

equally ready to assert their opinions regardless of whomsoever they may please or offend. Long-transmitted habits tell. Hence—it must be true, since the stage is the mirror held up to nature—the typical “Yankee” of the drama puts his heels on the chimney-piece, or reclines them gracefully on the top of the stove, as he charges the poker or the handle of the bell, just as his fathers did the same by a pine log and a fir cone. The sons of the Cavaliers in Virginia in like manner inherit many of the best and worst



INDIANS OF THE GRAN CHACO WATCHING THE FIRST STEAMER ON THE VERMEJO.

qualities of their forefathers. “Kentish Sir Byng, who stood up for the king,” was a gentleman of chivalric sentiments, according to his way of thinking, but being also an assiduous waiter on fortune at the gaming-table, fell under the rapier of another gentleman of the same type, and left his younger sons penniless, and all his daughters portionless. The girls came to court, and may be seen in Charles’, or James’, or William’s Picture Galleries at Hampton or St. James’, and the boys went to grow good tobacco on His Majesty’s plantations in the commonwealth of Virginia. But they did not cast off their old habits with their country. Their genealogical tree was carefully cultivated, and the Byngs of Virginia were particularly careful to let all the world know that they were of the same

"good old stock" as the Byngs of Kent, whose grandsire fought at Naseby and Marston Moor. In all the British Empire there were no such Tories as the Virginians, or Marylanders, and up to one fatal day, something over 100 years ago, "the king" had not more loyal subjects in London or Liverpool than in Baltimore or Williamsburg. Still, that did not prevent the latter from flocking to General Washington's standard, in 1776, just as the same hot-headed gentlemen found it quite in keeping with their new allegiance to ride to Bull Run with General Lee in 1861. They gambled away their rice-fields, as their fathers had hazarded their hop-gardens, on the throw of a die, and they fought duels with bowie knives and revolvers in Virginia, just as their ancestors had "asserted their honour" in England by killing each other with rapier and wheel-lock dag. But nowadays no man would expect to find the idiosyncrasies of the Virginians exhibited in cities. It is on the banks of the James River, or in the Roanoke Valley, where the student of atavism or its allied doctrines would have a chance of finding facts in support of his theory. The people of the Western States are again even more "original" than those of New England, for the simple reason that in the Western States, where the tradition is that the settler, not fond of neighbours, moved in the spring because "two strangers had been seen in one Fall," the country is, as a rule, thinly peopled, and men have, perforce, to think and act for themselves. Moreover, the narrowness—original and acquired—of the New Englander and Southerner, have, among the Western men, been purged by the influx of Teutons and Scandinavians, and by many tussles with Madame Fortune, and what an old French chronicler calls "Monsieur le Sauvage." The result of this is that they are not awed by "authority," nor by the eternal reading of and hearing other men's ex-cathedra "views," do they, like ordinary people in their condition of mental life, in time cease to have the power or the inclination to think for themselves. And—what this long parenthesis is intended to lead up to—so it is in the wild Pampas of the South. There, life is more primitive than in even the smallest village of the Argentine Republic, and though it is just possible that the Argentines might not be inclined to take the Gaucho as the type of his nationality, he is quite as much the apotheosis of the La Platan as John Bull is of the Englishman. This brief sketch would therefore be culpably imperfect without a few words about the Gaucho and the Gaucho's home. First, however, let us take a ride into the Pampas.

THE PAMPAS: THEIR PHYSICAL CHARACTERISTICS.

In familiar parlance, geographers speak of the plains of Patagonia, the Pampas, and the Chaco, but in reality they have no very definite natural boundaries. As Mr. Frank Parish points out, the two latter extending, respectively, across the central and north-east parts of the country are in fact the same continuous formation in which a slight undulation divides the streams of the Chaco, which join the Parana from those of the Pampas, which flow, either into the Atlantic, south of the latter river, disappear by absorption into the soil, or evaporate as they spread over the plains. The underlying formation of the best of these plains is a deposit of earth, which seems to have been "scoured away from the Andes and the highlands of the central parts of the continent," and is overlaid by three or four feet of rich mould, formed by the constant decay of the luxurious vegetation

which grows on the surface of it. The worst parts of the western Pampas, and the greater part of Patagonia, is composed of coarse detritus and gravel from the Andes, and requires irrigation before it can become even moderately fertile. There are other portions of these plains which are mere saline or brackish marshes, or dry, salt-white wastes, evidences of the former position of an island sea, when the country was lower than it is at present. Mr. Charles Darwin, whose early researches in this region forty years ago laid the foundation of his fame, and yet form our best guide to the geology of the Pampas,* indeed brings forward proofs almost positive to show that the plains of Patagonia and the Pampas have been gradually upheaved 400 feet in the southern part of the former, and 100 feet in the latter district. At one time the Pacific and Atlantic Oceans were in all likelihood connected through what is now the basin of the Santa Cruz River, in latitude 50° S. "The latter district," writes Mr. Parish, "appears to have been upheaved at least 1,400 feet before the period of the gradual upheaval above mentioned, as indicated by the present position of gigantic boulders, which have been transported on icebergs sixty or seventy miles from the present rock. The enormous layers of gravel and sand on the plains, and even on the hills of Eastern Patagonia, give evidence of its having at one time formed the bed of an ocean which rolled against the Andes or intervening ranges of mountains." Thus the characteristic gravel formation of Patagonia is explained, while, according to Mr. Darwin, the earth of the Pampas, which now extends to the south-west and north-west of the estuary of the Plata, over an area of at least 750 miles long and 400 miles broad, to the thickness of from thirty to forty feet, was originally deposited as silt or sand by that river, the estuary of which has been continually changing its position, owing to the elevation of the land. It is more than likely that in time the Straits of Magellan will become a sandy valley, though a railroad or some better mode of communication will, in the far future, connect the Atlantic and Pacific Oceans. The word "Pampa" signifies, in the Quichua tongue,† a "valley" or "plain." The Pampas may be roughly described as the prairies of South America, though in Peru it is a term applied to designate any tract of level land no matter where found, and in this sense is transformed into *bamba*, a component of many Peruvian geographical names. The true Pampas are, however, those we are now describing, and which are calculated in round numbers to contain an area of about 1,500,000 square miles, varying in quality from the waterless strips of desert called *traversias*, clothed only with a few boulders, to the more fertile ones lying on the slopes of the Cordillera. All of them, however, from the rapid alternation from moisture to parching drought which they undergo, are incapable of supporting trees, and are accordingly covered with, among other gramineæ, the luxuriant Pampas grass (*Gynerium argenteum*), in tufts six to eight feet high,‡ and other herbaceous plants, and by sparse groups of stunted bushes. The sterile Pampa has a peculiar vegetation, consisting for the most part of "hard plants with long thorns;" but in the fertile Pampa, the rich grasses which, during, at least, a portion of the year—as in the province

* "Geological Observations in South America" (1846); "A Naturalist's Voyage Round the World" (1839).

† Markham: "Contributions towards a Grammar and Dictionary of Quichua, the language of the Yncas of Peru" (1864).

‡ Another species—*G. saccharoides*—which is found in Brazil, yields a considerable quantity of sugar.

of Buenos Ayres—carpet it, supply abundance of food for stock. Trees, unless where planted, are, as we have already indicated, entirely wanting; but along the shores of the streams and great rivers are found occasional clumps of a species of willow—the *Salix Humboldtiana*. Numbers of lakelots occur, but as the supply of water in them depends upon rainfall, they are alternately filled and empty, according to the season. The soil is much the same in the provinces of Buenos Ayres, the southern half of Santa Fé, and Cordoba, and the northern part of the great Patagonian plains to Bahia Blanca. Then, according to the notes of Mr. Napp, the sterile Pampas show themselves to the west and north-west, and on the north-east begins the Grand Chaco, which alone of the Argentine plains is possessed of any forest growth, or monte.* In the provinces of Corrientes and Entre Rios there are also plains of some extent, but the country is chiefly hilly and rolling, and is more like the southern part of Brazil and Uruguay than any part of the Argentine Republic. There are no pampas whatever, and instead of rocks, grass-lands, and sterile plains, the broken country is covered with a thick sod, while fine forests shade the valleys and the banks of the great rivers, fed by the gathered waters of the Andes, Southern Brazil, the Grand Chaco, and the numberless streams which rise in the centre of this Argentine Mesopotamia, lying between the rivers Parana and Uruguay.

After the pictures which Darwin and Head have painted of the Pampas, it would be courting failure to attempt covering the same canvas. It will, however, serve our purpose sufficiently well if we select from our notes a few particulars of the Pampas as they exist in the province of Buenos Ayres—perhaps as favourable a type of them as could be chosen. "The general appearance of the country is that of a vast plain, covered with grass or 'thistles,' and almost destitute of trees." In a few words this description of Mr. Mulhall will give a fair idea of the appearance of these pasture-lands of the South. There are a number of *arroyos*, or water-courses, which have their origin in *cañadas*, or swamps, but they frequently dry up in the summer. With the exception of Del Medio, Arrecifes, Areco, Lujan in the north, and the Salado, Colorado, and Rio Negro in the south, the Pampas have no permanent running waters. Still further south is the Chupat, but this is properly a Patagonian river, while the Rio Negro is the Indian frontier-line southward. All this region is familiarly known as "the camp," from the Spanish word *campos* (field). In Buenos Ayres people talk of So-and-So living "in the camp," or of such a like place being a mere "camp town." The word "camp" thus corresponds to the Australian "bush" or the Indian "mofussil." The northern part is high, but so exposed to drought that in 1859 over a million horned cattle perished. The southern part is, on the contrary, low, and in consequence suffers in the wet season. As a rule, the soil is rich, and produces good crops of natural grasses. The climate is healthy, a fact self-evident to any one who looks at the robust *estancieros*, native and foreign, who pass their life "in the camp." "The spring is the pleasantest season. As summer approaches the heat becomes excessive. The thistles, which before looked like a crop of turnips, suddenly spring up to a height of ten or eleven feet, armed with strong prickles, forming dense jungles, impenetrable to man or beast. The appearance of the country undergoes a

* *Selvas* is a term rarely applied to forests in the River Plate country. The word *monte* also means a mountain.

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A SCENE IN THE PAMPAS (SHOWING THE PAMPAS RAILROAD, RHEAS, ALPACAS, AND BISCACHAS).

complete change in the course of a week or two. About Christmas (Midsummer) the thistles are all in full bloom, and soon droop and die. Tropical rains fall in winter, and the earth turns green again. Snow may not be seen for a generation, but ice is not uncommon, and the wind is often piercingly cold." A "pampero" is, indeed, a wind to be remembered, but to the citizens of the town of "Good Airs"—which has sadly belied the title given to it by the enthusiastic founders—look upon this breeze as bringing health and vigour to their jaded bodies. It is a famous wind—a Southern Euroclydon—of much the same type as the Texan "Norther," whose acquaintance we have already made (Vol. II., p. 143).

THE VEGETATION OF THE PAMPAS.

The botanist has not a very fruitful field on the Pampas. The "social plants," such as grasses, diminish the diversity of species, though the plants which are found are exactly those most suitable to the wants of the men and animals who have made their homes in the Pampas. There are also a number of introduced plants, which have in some districts taken possession of the country, to the destruction of the original vegetation. Among these may be mentioned the burr, the *Cynara Cardunculus* (the "thistle" so-called, in reality the cardoon), the fennel, the hemlock, and numbers of others. But of all plants grasses are those best represented on the Pampas. These, however, do not form the dense compact sod which is so characteristic of old pastures in Europe. "Instead," writes Professor Lorentz, "there are coarse and scattered tufts of hard and dry grasses, which cover the yellow clay like thousands of little islands; the genera *Stipa* and *Melica* principally furnish the species. At the place where their formation is most pronounced, the earth is cracked between the tufts, and is often washed away by the rains, so that the grasses are left as little eminences, the interstices sometimes being filled up with smaller species. At a distance these grasses have the appearance of a compact sward, and thus the Pampa appears like a lawn of a very varied colour, according to the season—black as coal in the spring, when the dry grass of the previous year has been burnt; bluish and clear green when the young leaves begin to grow; a little later brownish-green—the colour of the adult plant; and finally white as silver when the seeds ripen. Thus it is easy to imagine yourself in an ocean of liquid and undulating silver." The southern Pampa more resembles a plain than that of the north, which is undulating. The tufts of grass are thicker, and more resemble a sod; their colour, according to Messrs. Heusser and Claraz, who have investigated the Pampas flora, is a purer and fresher green. The *Compositæ* (dandelion and daisy order) are, next to grasses, the plants most abundantly represented on the Pampas, though the species are not showy, while vervains, mallows, the purslane order, and leguminous plants, and—on the borders of the swamps—reeds and a large *Eryngium* (Sea Holly), eke out the limited vegetation of the region. The soil is, in certain localities, well enough fitted for trees, and the climate in sufficiently sheltered places does not rebel against them. But they neither grow here nor on the North American prairies, where the circumstances seem also not prejudicial to their growth. But in a great pasture-ground trees are not in favour, and as the cooks have strong conservative

instincts in favour of using *argols*, or the droppings of cattle for fuel, the motive power to the growth of trees is wanting. Peach-trees, grapes and figs, apples, and pears, however, flourish in some localities, while near the towns or villages the *Eucalyptus Robinia* (false acacia), Paradise tree, and Lombardy poplar have been cultivated with ease, in spite of the armies of ants which prey on them. The ombu (*Pircunna dirica*) is the tree most in favour, on account of its cool, refreshing shade, and for the landmark which its strange appearance supplies. The "pita," or flowery aloe, forms the usual fence in the suburban country seats. It grows to a height of thirty feet, and the leaves being seven or eight feet long, and five or six inches in thickness, forms a fence which before now has proved impenetrable even to Indian assaults.

The Pampa has changed its aspect owing to the browsing of sheep, the hard, long coarse grass-tufts, or *pasto-duro*, disappearing and being replaced by the compact, tender, and shorter herbage known as *pasto-blando*. Thus between Buenos Ayres and the River Salado the Pampa has totally changed its character. It is the general opinion that this is owing to the impoverishment of the soil, though most likely this change is simply owing to the fact that the fine herbage is no longer choked by the long coarse grass, which the cattle have cropped, and accordingly springs up as the sun and air reaches it. The *pasto-duro* is, however, absolutely necessary for feeding cattle and horses during the winter (p. 233).

THE ANIMALS OF THE PAMPA.

Among the principal Pampean animals is the biscacha, or viscacha (*Lagostomus trichodactylus*), which is to the Pampas what the prairie dog is to the prairies of the north. They are hated by the farmer, as they burrow the land in all directions, and accordingly there is much danger in travelling on the plains, especially after dark, from the horse stumbling into one of the biscacha holes (p. 233). The armadillos are well represented in the Pampas, no less than three belonging to the genus *Dasypus* being found there, while others exist in different regions of the Republic. The common one, the "peludo" of the natives, is found all over the country. It burrows in the ground, but does not leave an opening easily discernible behind it. The natives regard it as one of the daintiest of dishes, and look upon that day as not lost in which they can serve up a peludo roasted in its shell, instead of the wearisome beef and mutton, which on ordinary occasions form their dietary staple. The mulita, or piche (*Praopus hybridus*), another species of armadillo, has such powerful claws that if it once gets its head underground, it is impossible to pull it out. The Pampa hare, a species of cavy, or guinea-pig (*Dolichotis Patagonica*), is found in the south-eastern region, as well as in Patagonia, while the conejo, or "rabbit" (*Cavia leucopyga*), is a common pest of the estancia gardens. Wild dogs at one time used to roam about the country in packs, like wolves, doing an immense amount of harm to the flocks, but of late years they have got tolerably well thinned off. The beautiful Argentine skunk (*Mephitis Patagonica*), the comadreja, or "weasel," but which in reality is a species of opossum (*Didelphis Azarae*), fond of sucking eggs, various species of rats and mice, "nutrias," polecats, deer, and tiger cats, may be mentioned among the other mammals of the

Pampas. The Cui, or so-called nutrias (*Myopotamus coypus*), furnish furs, while the tiger-cats are not common here, though in the beautiful islands of the Parana they are much more frequent. Here, amid the dense vegetation which comes down to the water's edge, lurk the ugly carpineho, or river-hog (*Hydrochaeris capybara*), a large rodent, and its enemies the puma (*Felis concolor*) and jaguar (*Felis onca*), besides serpents in abundance. Here are also found those numberless orange and peach groves, which supply Buenos Ayres with fuel and early fruit. When the river is high, it is no very uncommon circumstance to see the whole surface of the Ægean-like archipelago covered with the debris of these mud-formed islands, buoyed up by matted roots, and carrying freights of serpents, pumas, and even jaguars, down as far as Buenos Ayres.* Sir Woodbine Parish, indeed, mentions a case of four jaguars having in this manner been carried the whole way to Montevideo, where they landed, to the horror and astonishment of the inhabitants.

The Pampas swarm with ducks, partridges, and a species of horned plover, called, from the noise it makes, terotero (*Fanellus Cayanensis*). When the estanciero hears at night its cry of "Ter-o-tero," he knows there is something stirring, and springs to his horse immediately. From a culinary point of view it is extremely tough eating. The large partridge—or *perdiz grande*—affords fine sport, especially when flushed with a pointer, otherwise it either lies still or runs before the sportsman hidden in the long grass, instead of rising. Mr. Parish Robertson grows enthusiastic over this sport. "Of all the shooting I ever saw, grouse, woodcock, pheasant, blackcock, partridge, snipe, ptarmigan, there is none equalling in intensity of delight and excitement the large South American partridge. His scent is so strong, that from the moment your dog comes upon it the agitation of his frame is almost hysterical. The bird before he will rise runs at a prodigious rate, and if your dog is coursing upon him, as an English dog does when he has traced a covey, you stop or lie down, you would never get a shot. The bird is off the moment his quick ears, or natural instinct, has told him his pursuers are near; not off by flight, but by a run which commences in suspense and fear, and terminates in absolute precipitation. So that for the chance of shooting your bird you are obliged to encourage your dog to go upon him, to follow up yourself the game with unremitting alacrity, and to pay with palpitating satisfaction, after, perhaps, a ten minutes' run, for the achievement of bringing down the goodly prize you have so breathlessly pursued."† The thorough-paced equestrian inhabitants of the Pampas, however, pursue the partridge on horseback. They affect to know that it will rise only three times. Accordingly, as soon as one of the birds is flushed, it is pursued on horseback with dogs. "Every eye is strained till the bird is marked down. When they come up to him the same process is repeated; again he is marked down for the third time. Swifter and swifter is the chase, and they run into the victim, who surrenders at discretion, and gets little mercy." There is also on the Pampas a hawk which pecks out the lambs' eyes, and another, the "carancho" (*Polyborus vulgaris*), which acts as scavenger to the garbage which accumulates around every estancia, and, of course, the great bird of Argentine, as of all the neighbouring regions, is the condor (*Vultur gryphus*), but it is never seen away from the high mountains, over

* E. W. White: "A Naturalist's Visit to the Sierras of Cordova," *Field*, September 14th, 1878.

† "Letters on Paraguay," Vol. I., p. 236 (quoted by Hinchliff, *lib. cit.*, pp. 155, 156).

which it may be seen soaring in solitary aerial empire. In the Sierra the condor "hunter" is a welcome visitor, for the birds swoop down upon the young cattle, and immediately tear out their tongues, so as to prevent them giving alarm. The preliminaries to the sport of condor shooting is to kill an old mare, or other large animal, in the vicinity



THE SOUTH AMERICAN RHEA, OR OSTRICH (*Icthyophaga americana*).

of its haunts, and salt it well, so as to prevent the bird disgorging the carrion when alarmed. Otherwise, led by instinct, it will immediately throw this stomach ballast overboard, when it discovers that the load prevents it soaring out of the reach of the "hunter's" bullets. One species of parrakeet, the catita (*Conurus murinus*), may be seen in numerous flocks, morning and evening, flying over the city of Cordoba, going and retiring to the high land, where they live in society in great nests. In the Sierras they are extremely abundant, and destructive to crops. Mr. White tells us that

on each patch of ground, where wheat or maize is cultivated, a boy is stationed to frighten them off by shouting; "and this being continued the length of the valley, some leagues, the effect of the chorus of scarecrows is very curious. The birds, however, are a match for their tormentors; for, gliding down to the bottom of the stem, they bite that through, when the stalk falls, and so, unseen, they leisurely consume the grain. In winter they live mostly in the woods, and feed on the kernels of wild fruits that strew the ground in rich abundance. They breed in holes in the cliffs along the banks of the rivers; four or five eggs are usually found in one nest, which is at the extremity of the hole, about two or even three yards deep. The young birds are justly esteemed a great delicacy, yielding a dish not unlike roast sucking-pig. Walking down to the cliffs in the breeding season is hazardous, as the birds in myriads wheel round your head and deafen you with their shrill screams; still more perilous is the attempt to sack their nests, which must be done by dangling in the air from a rope over a cliff 400 feet high. Eagles, too, like the flavour of parrot; for, casting the eye upwards, there sits his watchful majesty on a projecting pinnacle, ready to pounce upon any unfortunate stray bird."

The *pica flores*, or humming-birds, flit about from flower to flower, looking at first sight, to the inexperienced eye, like green and gold butterflies. A little ground owl, called lechuza (*Noctua cunicularia*), commonly lives in the mouth of the biscacha holes, just as in North America one is found in the burrows of the prairie-dog (Vol. II., pp. 44, 46). The "hornero," or oven-bird (*horno*, or oven), builds its nest of mud on the forks of a tree. It is a species of *Furnarius* (*F. rufus*), though another species (*F. fuliginosus*) inhabits the Falkland Is'ands. Its nest is large and dome-shaped, with a small entrance on one side, so as to have a resemblance to a rude oven. It is composed of clay, grass, &c., well plastered together, and is divided into two compartments, in one of which is the nest proper with the eggs, while the other is reserved for the use of the male, who also assists in the construction of the family dwelling. The rhea, or ostrich (*Rhea Americana*), may be often seen in great flocks, crossing over the interior plains (pp. 233, 237). Sometimes, heedless of the screamings of the Pampa engine, these birds will continue quietly feeding as the train approaches. A moment more, and the line is strewn with their bleeding and mangled bodies. Mr. White repeats an amusing bit of hunters' gossip which may be possibly true, and is, at all events, a good illustration of one habit of the bird:—A Chilian sportsman, unaccustomed to ostriches, went out rhea-hunting with dogs, and succeeded in catching one. In high glee at his success, he proceeded to lash its wings with his leather girdle to prevent its flying (!) away. Thereupon down he sat to contemplate his capture and enjoy the usual whiff. The cigareto is made up, the match-box opened, the light ready to be struck, when, happening to lift his dreamy eyes, he beholds to his dismay the rhea airing her fleet heels on the horizon, and what is worse than all, carrying off with her his magnificent silver belt.

Numbers of snakes and other reptiles haunt the Pampa. Some of these are poisonous, others quite harmless. Among the former is the "vivora de la cruz" (*Trigonocephalus alternatus*), so called from the cross-shaped marking on its head. Among the latter may be mentioned the batrachian called "escuerzo" (*Ceratophrys ornata*), which

Mr. Mulhall, following native opinion, styles "a deadly kind of toad." In reality, it is "quite harmless."* It is not, however, the modern, but the ancient "fauna" of the Pampas which is most interesting. Buried in its soil are the skeletons of old animals, which in former days lived there. They are all different from the present species; but, curiously enough, are their close relations, though on a more gigantic scale. For instance, in what are known to the geologists as post-pliocene times, there must have lived in these regions gigantic sloths and armadillos, just as South America is at the present day the metropolis of sloths and armadillos of smaller size. The most famous of these was the *Megatherium Cuvieri* (p. 240), a colossal sloth which attained a length of from twelve to eighteen feet, with bones more massive than those of the elephant. Its teeth show that it must have been herbivorous; but, from the enormous weight of its body, it is certain that it could not, like its modern allies, the sloths, have climbed back downward among the trees, even had there been in its haunts trees to climb. Professor Owen long ago showed that it must have lived upon the foliage of trees or shrubs, but with this difference, that instead of climbing amongst them, it actually uprooted the tree bodily. It sat, most likely, upon its haunches and mighty tail, as on a tripod, and then, grasping the trunk with its powerful arms, either wrenched it up by the roots, or broke it short off above the ground. The *Mytodon* was another of these great ground sloths. The *Glyptodon* and *Schistopleurum* (p. 241) were, on the other hand, gigantic armadillos, but differed from all modern armadillos in having no bands in their armour, so that they must have been unable to roll themselves up. While no armadillo of our day has ever been found much over three feet in length, and most of them are much smaller, the *Glytodon clavipes* must have been more than nine feet long. The head is also covered by a helmet of bony plates, and the trunk was defended by an armour of "almost hexagonal bony pieces united by sutures, and exhibiting special patterns in each species. The tail was also defended by a similar armour, and the vertebrae were mostly fused together so as to form a cylindrical bony rod."† At the time these old denizens of the New World lived, the site of the Pampas seem to have been occupied by the sea. Along the bottom of this shallow ocean the waters of the La Plata spread out a layer of red mud, derived from the wearing away of the granites and porphyries of the Andes and Brazilian Sierras, and in this mud were entombed the carcasses of the great sloths and armadillos, which fell into the river, as it flowed through the primeval forests of the north and west. So numerous were they, that it is almost impossible to dig a trench through any portion of the Pampas without finding some of their remains. In the caves of Brazil are also found true ant-eaters, armadillos, and sloths, many of gigantic size, but none of identical species with those which are now found living on the earth.

LIFE IN THE CAMP.

We have already noted some particulars about stock-keeping on the Pampas. As hundreds of Englishmen are year after year seeking a home in these regions, let us devote

* Mulhall: *lib. cit.*, pp. 101-105; Lorentz and Wezenbergh: in Napp, *lib. cit.*, pp. 85-174, &c.

† Alleyne Nicholson: "Ancient Life History of the Earth" (1877), pp. 350-352.

a few lines more to this subject, drawing our facts from the official account of the Republic, which was compiled for the use of the Central Argentine Commission at the Centenary Exhibition at Philadelphia, and which document we have already more than once quoted. This estimate, it may be added, is based upon the state of matters in the province of Buenos Ayres, where the breeding of cattle is better understood, and where the Pampa is higher in value than elsewhere, and demands a larger capital. The reader can therefore be certain that *no more*, at least, will be required in other parts of the Republic. A square league—that is, 6,500 English acres—of pasture land costs, according to its distance from the city of Buenos Ayres, from 20,000 to 50,000 dollars in gold. This sum also includes



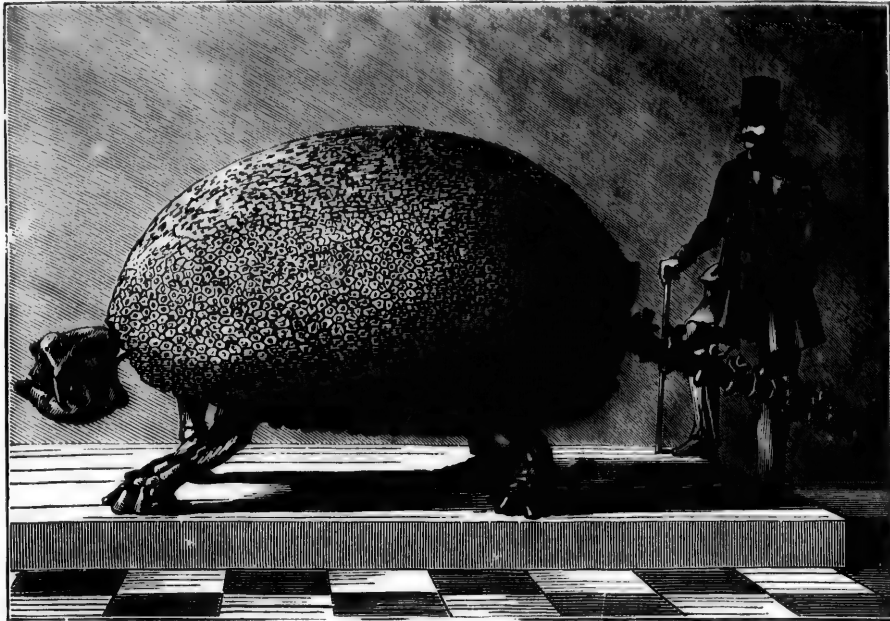
THE MEGATHERIUM (Restored).

the necessary buildings, which are usually of a very primitive description. Taking the purchase-money at 40,000 dollars, and the capital to be devoted to the purchase of stock at 20,000 dollars, the following is the way the money would require to be laid out:—

	\$	c.	\$
10,000 Sheep <i>al corte</i> (a term we shall presently explain) at 1 10 per head	=		12,000
1,000 Horned Cattle at 6	0	„	= 6,000
300 Mares ' at 4	0	„	= 1,200
50 Saddle Horses for the use of the Establishment, at 16	0	„	= 800
			\$20,000

The first year of the place would produce the following returns:—2,500 sheep sold to the “grease foundries” would bring 5,000 dollars; 1,000 sheep *al corte*, 1,200 dollars; 150 horned cattle for the butcher, 2,100 dollars; 100 *al corte*, 600 dollars; 25 mares, 100

dollars; in all, 9,000 dollars, as augmentation and profit for the year. To this may be added 4,000 lbs. weight of wool at 4,800 dollars, and 300 lbs. of hair at 60 dollars, bringing the gross proceeds of the estancia up to 13,800 dollars. From this sum must be deducted 240 dollars for the pay of a manager, wages of two servants at 280 dollars, six shepherds at 1,020 dollars, and sundry expenses 320 dollars; in all 1,800 dollars. Thus the profits on the capital expended is 20 per cent. *per annum*, though, indeed, some estancias yield an income of 25, and even 35 per cent. Food for the *employés* on an estancia really costs nothing. The animals on the place furnish abundance of butchers' meat, the chief



THE SCHISTOPLEURUM.

aliment of the labourers, and the sale of the skins, hides, tallow, and grease of the animals slaughtered amply pay all other expenses. Hence the business of an *estanciero* in the Argentine Republic is not only profitable, but affords to a man who is willing during the first years of his life "in camp" to endure some privation, a means of acquiring wealth rapidly, without much care or attention on his own part to the actual toil of the place. When to this is taken into account the fact that the value of land is rising in Buenos Ayres province at least 6 per cent. *per annum*, there is no great fear that when the grazier wishes to retire he need not dispose of his principality for less than he paid for it. The term *al corte*, which so frequently occurs in Argentine rural transactions, is an apt illustration of the abundance of cattle and sheep in that country, and of the consequent rough-and-ready way of dealing with them. *Al corte* means literally "at the

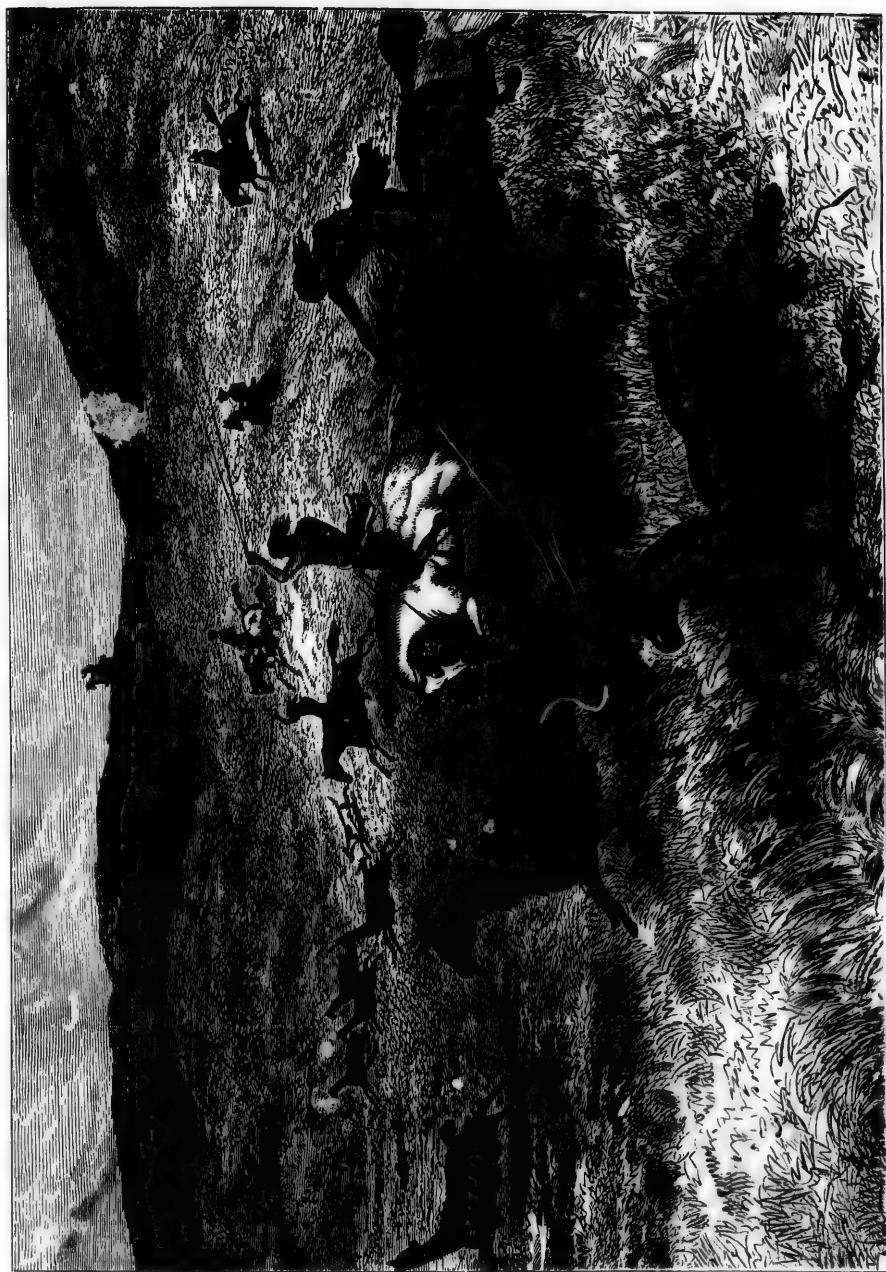
cut off." It owes its origin to the custom of a purchaser being forced to take at random—at so much per head—whatever cattle, old or young, good or bad, were separated from the herd. Indeed, by the custom of *al corte*, the tedious process of counting was not always put in practice. A portion of the herd was separated, and calculated by practised eyes to contain "about" so many animals. On this basis they were paid for at so much *per head*, and the purchaser took his chance of the flock containing a few less, just as the seller risked it containing a few more than he had calculated it did. At present a somewhat more systematic plan is adopted on most estancias. The animals are driven into a *corral*, or rough enclosure, the gate of which is opened just wide enough to admit of the escape of one animal at a time. They are then counted as they pass out by the interested parties, and the number being filled, the door is closed. Of course animals selected *al corte* may be good or bad, sound or sickly, and accordingly do not bring over head so much as those selected for the butcher or other purposes.

Life on an estancia is at best but a solitary existence, but to a man who has been cooped up in town all his life, or who is capable of enjoying the perfect freedom, the utter unconventionality, and the health-giving existence of the Pampas, there is an inexpressible charm about it, only equalled, and perhaps surpassed, by a life on the more beautiful prairies of the north. Mile after mile he may gallop over rolling plains, through long grass, stumbling in biscacha burrows, or among swampy places where the rain has collected. All around is a horizon. A black cloud in the distance proves, when approached nearer, to be a flock of vultures hovering over a dead or dying ox, or a noisy brood of hawks, kites, and caranchos rise screaming from the meal of carrion at which they are disturbed. Flights of ducks wing their way to the laguna. The biscachas are asleep in their holes until sundown, the solemn little owls sitting in the doorway, never moving a muscle, save to stare at the horsemen who gallop past, unless, indeed, they run the risk of being trodden on, when they will fly away a few yards with "soft flapping motion," and then their indignation having subsided, alight again by the side of another burrow, there to sit staring, in their sleepy blind-man fashion, as they lazily mount guard all the livelong day, venturing forth when the sun goes down, and the prairie beasts begin to feed, or grow incautiously drowsy. A South American horse never jumps; he only gallops unwearily along over grass land, through *monte* or wood, where it is found, over the muddy bed of *pontano*, or stream, or by the treacherous edges of arroyas, lagunas, or banados (swamps), where the tall sedges hide the water, and only a mighty rushing sound tells that the clatter of hoofs have alarmed myriads of wild fowl, ducks of various kinds, teal, and widgeon, mixed with flocks of a species of water hen, and rosy clouds of flamingoes. "Storks, *mirasols*, cranes, some handsome, some foul and uncouth, rushed into the air, trailing their huge legs under them for a short ungainly flight, and dropping sleepily into their native mud as soon as we had passed them. We walked the horses for a while, and in the stillness on the soft turf we heard the clear ringing scream of birds, slowly whirling round and round at such a vast height above us, that they were difficult to see. They were great turkey buzzards, unclean carrion lovers, which sometimes alight in such immense numbers that I have mistaken them at a distance for a flock of sheep." The estancia itself is an unimpressive enough looking

place. The house is invariably of one storey, with a flat roof approached by steps, often with verandas in front and behind, perhaps a garden, and a little way off a row of still humbler buildings for the accommodation of the manager and the *capataz*, or herdsman, while a shed, on the floor of which the peons roll themselves in their ponchos, after gorging themselves with *maté* and beef, complete the accommodation for man. The "corrals," or enclosures for sheep and riding-horses, are not far off, while the bones of defunct oxen and other *frutas del país* litter the ground so plentifully as to suggest that whatever may be lacking on a Pampas estancia, beef and mutton are assuredly abundant. The occasional sound of high-pitched—but withal stately—Spanish oaths, the lowing of cattle, or the neighing of horses, are about the only sounds that break the calmness of the sultry summer afternoon. Then evening comes, and the great ball of the sun can be seen sinking beneath the grassy horizon, far off to the west of the limitless plains, with much the same effect as is seen at sea. "The day's work was done," writes Mr. Hinchliff, whose admirable sketches we have freely drawn upon in this description of an estanciero's life, "the last peon came galloping in from a distant station, tossed off his saddle, put his horse into the 'corral,' and prepared to join his comrades in cooking their beef, and chattering over the red glare of a wood fire," wood happening to be common in the locality under description, though argols form the usual fuel. "We could no longer see flights of ducks passing swiftly overhead, and even the scream of the ever-watchful *ter-o-tero* ceased. The *biscachas* awoke from their sleep with the very last rays of the sun, and cautiously peeped from their holes to satisfy themselves that he had really set before they ventured to begin their supper. The stars came out in all their glory, shining through the pure air with a brilliancy which reminded me of many a night among the high Alps, when the stars indeed shone like lamps in heaven. The dogs at a sheep-station howled for a moment in the distance, and then all was still—buried in that wonderfully impressive silence of solitude, which almost enables the mind to realise to itself the eternal silence of infinite space." At early dawn the oven-birds—sociable feathered beings, who delight to live among the haunts of men—with their rattling note just outside his window, rouse up the sleeper—the Pampero's toilet is soon made—and in a few minutes the air, which has not yet lost the coolness of night, is giving the morning rider that appetite for breakfast, which indeed is rarely wanting in those parts of the world, where late carousals are rare, and a regular life a necessity to those who would hope to live long in the land, in either peace or prosperity. The plain is again being gilded by the rising, as last night it was shot with the gold of the setting sun. Preparations are being made for the morning's work, by a peon driving, in a mad gallop, about a dozen horses back to the corral from the pond where they have been watered, preparatory to being used in the daily operations of the estancia. The Gaucho is a moderate liver. He does a hard day's work without any breakfast, save a series of cigarettes—or a little *maté*—at short intervals, waiting until he returns for the evening, when he dines staunchly on a few pounds of beef or mutton. Stables or grooms are unknown hereabouts, and accordingly the man who cannot attend to his own horse had better defer a visit to the Pampas until he can. The *recado*, or native saddle, is a complicated apparatus—all straps, coverings, and belts, some for use, others for ornament—and though a great ease to the man who has to do a long day's

riding, is much more wearisome to the horse itself than the European gear of a similar description. It is very cumbrous, weighing from 30lb. to 40lb., but with its various wrappers affords materials for a fair bed to the frugal Gaucho, and moreover gives him, when he has money, an opportunity to ornament it with elaborately stamped leather, and even handsome silver trappings, with spurs, and if he has been very successful at the gaming-table even stirrups and bit ornaments of the same metal, plated or solid: even his clothes are secured with huge buttons of the same metal. The recado supplies, moreover, in its girth of strong hide, which goes completely round the horse and saddle, a place into which to fasten the ring, to which is attached the indispensable lasso, thus throwing the weight and strength of the horse into the scale against the strength of the animal over which he has thrown this familiar implement of the Hispano-American herdsman. The lasso is made of raw hide, but is rendered as pliable as a rope of silk by constant use and the application of grease. The native whip, or *revenue*, is attached to the wrist by a strap passed through a large silver ring, at the end of the beautifully-plaited handle. The frame of the handle is usually of iron, so that the *revenue* is a formidable weapon either to man or beast. A Gaucho, finding his horse unmanageable, will stand up in his stirrups, and by one tremendous blow between the ears fell the animal to the ground, and then transfer his recado to the next he can find. The *manecas*, or hobbles, are also useful South American implements for those who have to "stall" their horse under the arch of heaven, and the long-bladed knife worn at the waist is an equally important weapon to the Gaucho, who, to use Mr. Hinchliff's words, uses it "for every conceivable purpose, from cutting a steak to avenging an insult." The same writer so graphically describes another phase of life in the Rio de la Plata region, that I must again borrow from him. It would be unjust to mangle his description by condensation:—"In the country, not very far from Buenos Ayres, houses of small landowners and sheep-farmers are generally to be met with at an interval of two or three miles, and here and there a small shabby tenement contains a family of squatters with no ostensible means of supporting themselves, and with a reputation about as bad as that of the gipsies of Europe. Sometimes, instead of shooting, we would take our horses, and gallop through a round of visits to some of the neighbouring estancias. 'The world was all before us where to chose;' not a fence or barrier all around the plain: a dark spot on the horizon, with one or two ombu trees shading it, would mark the residence of the man to be visited; and not being bothered by roads and finger-posts, we had only to ride straight to our distant mark. *Vamos!* is the word, followed by a touch of the *revenue*, which hangs from the wrist, and we are off at a gallop. Take what direction we may, the terotero are sure to be screaming in the air, the owls gravely staring from the *biscacheros* and the *caranchos*, with their unclean companions picking the bones of the last dead horse. We pull up for a moment to find a good place for crossing the *arroyo*, and the ducks start from under the banks so close that we regret having left our guns behind. A short flounder in the mud, and then we are across the stream, again flying over the plains straight to the ombu tree, which begins to look a little less distant, while the dark spot begins to revolve itself into a house, and some outlying sheds. We pass the corrals, and the barking of a legion of dogs announces our arrival, warning us at the same time to bow to the custom of the country,

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HUNTING GUANACOS WITH THE BOLAS.

and exchange the exciting and exhilarating gallop for a decorous walk to the house. If the *patron* is at home we are invited to walk in, and a gossip is at once started about the state of the weather and the sheep. Cigars and *maté* are provided, if it is in the house of a native; probably a glass of brandy, or *edna*, the white rum of South America, if the host be an Englishman. A visitor is always welcome, and sure to meet with help if he wants any. Away and away again with a fresh sweet breeze and a grilling sun, the most delicious combination of elements that mortal man could desire; away over the springy turf of a country like ten thousand Newmarket heaths put together; away for another *ombu*, and another dark spot on the horizon. A few leagues' more galloping and rejoicing in the exhilarating air, now and again suddenly swerving to avoid a *bisacachero*, and laughing at the discomposure of a placid little owl; starting at last homeward, and ending with a race as fast as the horses could lay legs to the ground, we finish another glorious day of healthy excitement. It seems as if a few such weeks must add something to a man's natural life." A change is, however, fast coming over the life of the Pampero. A railway to Tucuman now stretches across it (p. 233), and the old familiar life is—as we have seen—altering under the influence of that most revolutionary of agents.

THE GAUCHO.

This is an individual peculiarly associated with the River Plate country. In reality he is the peasant—the countryman, as distinguished from the townsman—but the name is usually applied to the native herdsmen, peons, or labourers on the great estancias. Nominally, these men are Spaniards; actually in the majority of cases they have a dash of Indian blood derived from their maternal ancestors. All their work is done on horseback. The lasso and the bolas, or balls at the end of cords, which thrown adroitly soon lassoes the animal pursued (p. 245), are their weapons, flesh their food, and the Pampa their home. Everybody on the Pampas goes about his business on horseback. The peons gallop down in the morning, lasso an ox, drive it towards the house, skilfully throw it on its side, and in a trice cut its throat. The cook rides down, cuts out what he wants for his master's breakfast, the labourers take what they require, and the *puesteros*, or shepherds, gallop in from their outlying posts, and return with their day's supply of beef slung on the saddle before them; that is if the estancia is a cattle one. The day's work done, they gorge themselves with meat and *maté* in any quantity. All other food, unless as mere chance luxuries, they despise. They will eat an armadillo when they can get him, and a *bisacha* in the Pampa—for it is not found in Uruguay—though this particular dainty tastes rather too much of the hedgehog to be agreeable to all tastes. But beef and mutton are their food, and *maté* their drink. Desperate characters some of these Gauchos are, and any one who has seen the ferocious looking individuals armed with long glittering knives, mounted on horseback, slaughtering cattle at a *saladero*, will readily conceive what terrible cavalry they would make under the orders of a Rosas or Urquiza. Indeed, when their passions are roused, they never hesitate any more to bathe themselves in human than in bovine blood, though, as a rule, they care nothing for war, and as they have everything to lose by it, and nothing to gain, heartily hate being dragged from their homes, and

having their horses impressed for no other purpose than to mediate with the sword in a quarrel they know little of, and care nothing about. It is even reported—though this may be malicious—that courageous as they undoubtedly are, they will, when impressed, take their best horses with them rather than, as might be expected, their worst ones, for the simple reason that the swift steel is more convenient for running away on. At cattle markings the Gaucho is in his glory. There he can display his horsemanship to perfection, just as a Mexican or Southern Californian *vaquero*—who is his northern representative—can. These “rodeos” also give him an opportunity for gambling, for getting too much liquor, and for fighting. When a Gaucho is seen to kiss his knife, and declare something connected with it and another gentleman’s internal economy, on the faith of the most pure and immaculate Virgin, then that other gentleman, if he be wise, will take particular good care to put a long distance between him and the proprietor of the adjured blade. Taking them one with another, however, the Gauchos are not a quarrelsome set of men, and a stranger acting with becoming firmness and prudence has little fear as regards either his person or property. Bad characters—native and foreign—there are unquestionably in these camps. Strangers are advised in out-of-the-way parts of the country to beware of the too near approach of every individual who asks for a light for his cigar. It is sometimes best, by way of precaution, to stick your cigar in the muzzle of a pistol, for under pretence of taking it, there are cases known in which the ruffian has stabbed the unoffending stranger. There are even instances on record in which, under excuse of “embracing” a “friend,” the treacherous assassin has put a knife through his spine, in expiation of a long-cherished grudge. The ease with which a criminal can escape in such a boundless country of course favours the commission of all kinds of offences, though of late years the admixture of foreigners has done much to civilise and restrain some of the roughest of the old Gaucho families. Robbery is, nevertheless, not common. It is a proverb in the Argentine Republic that nobody plunders except the Government. In his normal state, indeed, the Gaucho (p. 217) is rather a good fellow, though staid, solemn, and reserved, very undemonstrative, not much inclined to make new acquaintances among the Europeans readily, and imbued with an immense deal of the *nil admirari* disposition. Nothing excites his surprise or admiration. The most he will say at news of peace or war will, with a whiff of the cigarette, be “Quein Sabe?” (Who knows?). If asked to ride twenty leagues, he will simply reply, “Si, Señor,” and be off. He is, of course, a perfect horseman, and judges a stranger a good deal as an English groom does, by his equestrian skill, and by the horse he bestrides. The times when he gets into trouble are at the *pulperias*,* or at his holiday in town. He meets strangers at these places, he drinks *caña*, dances, sings, plays cards, and gets excited by rivalry and other evil passions. A card or a woman may be the subject of dispute, but the end of the dispute is the same, namely, the sharp knife which hangs at his back. The Gauchos are great guitar players and improvisatori. These competitions, also, often give rise to quarrels, the unsuccessful *cantor* ending the affair by shouting “Caramba!” and challenging his rival to fight. Foreigners in Argentina are, as a rule, well behaved, as they are mostly men of substance, and have the responsibilities of property to weight their vagabond

* Drinking shops scattered about the lonely parts of the country.

propensities. But of late years there have also arrived a number of Europeans who do not exactly conform to that standard, and as whole districts are inhabited by hot-blood Irish estancieros, it not unfrequently happens that in the record of deeds of blood other names than those of Juan This or Jose That occur. The camp shops, often kept by foreigners, are the clubs of the Pampa. Here assemble the different estancieros to buy what they wish, discuss affairs, and too often to play cards, drink, and waste much of the time that might be better employed.* Public rectitude is low, and in some respects private morals are corrupt in the extreme. We have spoken generally of the country, but the manners of different provinces vary considerably, and the character of the people is also different in other parts of the country. The Corrientines—for instance—sneer at the priest-ridden people of the Cordoba, the “city of savants,” where the university is situated, while the Santiagueño—or inhabitant of Santiago-del-Estero—has his own opinion about the Mendocinos, San Juaninos, or Entrerianos. As for the polite Portianos—or people of Buenos Ayres—they consider that as the dwellers in the capital they have a prescriptive right to be supercilious to all the rest of the world. But that parochial weakness is not peculiar to the citizens of the Villa of the Good Airs.

CHAPTER XVI.

PATAGONIA: THE FALKLANDS: TIERRA DEL FUEGO.

WE have devoted considerable space to the Argentine Republic; for in these great plains more of our race are seeking homes than in any other foreign country, the United States excepted. In time, many more will follow, and already better times seem in store for those countries so sorely harassed by the foolishness and crimes of those into whose hands they fell, after the disruptions of the Spanish Empire of the Indies. The region is, however, so extensive that only the barest outline of it could be given within anything like reasonable space. Even yet, there remain great outlying tracts which we have little more than mentioned. These are the territories of Chaco, Misiones, and Patagonia.

The *Gran Chaco*† alone has an area of 150,000 square miles, though it is probably an exaggeration to estimate the population at 50,000—30,000 would be nearer the mark. The country is partially wooded, and is reported to be really very fine, and well suited for white settlements. But the Indians, who, except on the frontier, are the chief inhabitants, are not neighbours whom settlers, as a rule, like. Some of the tribes are not without industry. The Matacos, for instance, make the best peons on the frontier estancias of Salta, and in the sugar fields of Jujuy. During the summer the Gran Chaco Indians live on the fruit of the algarrobo (*Prosopis*), and the “yuchon,” and on the fish which they find in the Parana, Paraguay, Pilcomayo, Vermejo, and Salado, and many other streams of smaller size. Agricultural and pastoral pursuits they do not now follow, though, in earlier times, most of the tribes had cattle

* Hinchliff: “South American Sketches,” pp. 152, 170, &c.

† “Chaco” is the Guarani Indian word for “hunting ground.”

and sheep; but a pestilence carried them off, and they have not since made any effort to replace their stock. On the contrary, having acquired a taste for beef and mutton, they now obtain their supplies by robbing their richer neighbours. Their life is not, however, a pleasant one. The want of clothing, bad houses, and precarious food, cut many of them off. They are grossly superstitious, and live in continual dread of the Gualiche, or evil spirit. They barter a few puma, jaguar, nutria, and other skins, collect the resin of the "palao-santo," the wild honey from the woods, and the ostrich feathers from the rhea of the plains. But civilisation has as yet scarcely reached them, though in the time



A PATAGONIAN ENCAMPMENT.

of the Spaniards some faint attempts were made to inoculate them with the tenets of the Christian religion. A heroic padre or two penetrated the wilderness, but the wars of independence came, and in the clash of civil strife the missions were forgotten, and the Gran Chaco Indians left to themselves. Taking advantage of these troublesome times they encroached on the settled country, and took possession of land which they still hold; indeed, at one time, so bold were they that it was dangerous to wander far in the mere outskirts of Santa Fé. "Colonies" are beginning to extend into this territory, and though at present there is little better than a hand-to-hand fight with the Indians, in time the settlers may re-conquer by the plough much of the territory which was originally won by the sword. The Gran Chaco Indian is not a hopeless savage. The possession of cattle would again make him stationary, and in time the sobering pursuits of agriculture and grazing would exert their beneficial effect in his character. It is said by the official

historians of the Republic that some of the Indians in the Southern Chaco have attempted, even in late times, to rear cattle. But their tribal disputes have impeded even this, while the thick virgin forests which extend over the territory have prevented their becoming good horsemen like their brethren of the Pampa. In their hiding-places in the woods and swamps—retired spots, which can only be discovered by experienced guides—they lurk secure against the visitation of the frontier guards, in search of the herds which they have snatched in their raids on the settlements, small though these predatory excursions are when compared with those of the Ishmaelites of the Pampas (p. 229). It may be interesting to note that in former days gigantic masses of meteoric iron fell in a remote part of the Chaco, traditionally known as the "Field of Heaven," though, as yet, we know but little about their history.

Misiones is "a small fertile and thinly inhabited country of 10,000 square miles, between the Upper Parana and Upper Uruguay." It is usually included in the Province of Corrientes, and of late years there has been a proposal mooted to break it up into 100,000 farm lots of sixty acres each, to be given free to emigrants, as the soil, climate, and facilities for getting produce to the markets are considerable, owing to its vicinity to two great rivers. The missions are a part of the old empire of the Jesuits, from which they were driven many years before the war of independence. The works which they created were wonderful, but evanescent. Of the 30,000 inhabitants, who in the heyday of the prosperity of the "Company of Jesus" composed the population of the missions, at the end of the eighteenth century—that is, thirty years after their expulsion—hardly 3,000 exist at present, and these have long ago lost their national organisation, and have more or less amalgamated with the neighbouring Corrientines. The census, it is true, gave 5,278 as the population. But it must be remembered that 1,178 of these form the population of Tomé, the capital, and of the entire population 1,940 are Brazilians, and 112 Europeans. The country is a charming one, well watered, diversified by hill and dale—wide open plains and stretches—in which the forest is so thick that it must be fired before a clearance can be made. Cotton, tobacco, sugar, rice, maize, mandioca, wheat, potatoes, oranges, cocoa, all grow plentifully under cultivation. *Yerba maté* grows wild. Near the river Uruguay it forms great forests, and in all one district, about Villa de San Xavier, there is a busy industry going on in the collection of it. The woods produce fine timber, and doubtless in the near future fruit-trees and vineyards will cover the slopes of the hills in this favoured though remote part of the Argentine Republic. The great drawback consists in the parrots, which will sometimes eat up a whole plantation in the course of a day or two. Carpinchos, wild boars, wood-turkeys, and sometimes a tiger, will afford amusement to the sportsman. But the unpleasantly numerous snakes and crocodiles detract considerably from the pleasures of woodland life; nor do regiments of monkeys add to the placidity of a mission farmer's existence. At one time cement, ironstone, and copper were mined by the Jesuits, but these sources of riches no longer exist, nor are grapes now grown, except to a very limited extent, though in the time of the Jesuits excellent wine and brandy were among the means by which these shrewd churchmen managed to make the best of both worlds.

PATAGONIA.

Patagonia is claimed by the Argentine Republic, though, in reality, her claim to the whole of the territory has never been conceded by Chili, and indeed by tacit consent the latter power occupies, at least on paper, a part of this huge, wild, lone land of the South. The territory includes all the country south of the Rio Negro, from the Atlantic to the Andes, down to the Straits of Magellan, an area roughly estimated to contain 300,000 square miles, or an area very little short of four times the size of Great Britain. The Chilian portion is that comparatively limited tract on the Atlantic and the Straits of Magellan south of Santa Cruz River. The whole region is a wilderness, swept by the howling "pampero" wind, and inhabited by tribes of wandering Indians, to the extent of perhaps 20,000. There is a white settlement at Carmen de Patagones at the mouth of the Rio Negro; at La Piedra, is the site of a Spanish settlement, formed in 1779; and on the River Chubut, or Chupat, a Welsh colony founded in the year 1805; but with the exception of these comparatively unimportant places, Patagonia is as yet unacquainted with civilisation, and may, probably, for long yet to come, remain in its present condition. The country is, broadly speaking, a table-land more elevated than the Pampas, and the vegetation is that of a dry climate, though numerous salt deposits, worked near the Rio Negro, are found in the valleys. The flora is, according to Mr. Darwin, similar to that of Mendoza, and differs from the Pampean vegetation, in the fact that the Pampas are true meadows, in which a few isolated groups of trees are found alongside the rivers, while in Patagonia is "a mixture of herbaceous plants and bushes, among which one or the other may predominate, or all are equally represented." There is no real turf, though the open places between the tufts are in the winter clothed with the green leaves of the *Alfilerillo*, a species of *Erodium*, which affords excellent pasturage for sheep. This plant sprouts after rainfalls, and generally spreads along with the increase of the flocks which pasture on it. The woody vegetation consists of brushwood so high that a man on horseback will only overtop it, and almost all the bushes are "crooked and thorny, and characterised by a miserable development of the leaves, which are sometimes entirely wanting." The *elcui*—probably the *Orycladus aphyllus*—is covered with a bark containing wax. The Indians burn the branches of this plant by holding them over a receptacle of water, and allowing to fall the resinous-like wax which exudes, drop by drop, into the liquid. This they collect and chew. There are also a great number of tunas, or *Cactaceæ*, some of which have thorns two inches long, and as hard as iron. They wound terribly horses not accustomed to these countries. Drs. Heusser and Claraz, to whom we owe these notes, remark that in the low and humid regions, and on the slopes which surround these localities, both wheat and rice prosper admirably; but though there are other vegetables, they cannot exist in great quantities, since the wandering Indians subsist almost entirely on animal food, including the horse, which exists in considerable numbers. The soil is, however, as a rule, sterile, and the climate severe, and not likely to attract many settlers. At present, they do not number over 4,000, and of these, at the latest census, the village of Carmen de Patagones, 400 miles south of Buenos Ayres, contains 2,567 of them. They live by trading ostrich

feathers and skins, guanaco, and other skins and rugs, made of peculiarly manufactured pelts called "quillangos," and by the cultivation of small farms, among the products of which the vine is, probably at no distant period, destined to obtain some importance. The Welsh colony is in a poor way, and maintains itself in much the same way as the Buenos Ayres one. The settlement of Santa Cruz consists of only three houses, situated on an island in the river. A considerable quantity of salt might be taken from a deposit on the south shore of the mainland, but at present the place is only a depôt for trading with the Patagonian or Tehuelche Indians (pp. 249, 253). During the severe weather large droves of guanacos and ostriches come down to the banks of the river for food and shelter, and are easily caught by the bolas or killed by dogs (p. 245). If the hard weather continue, Captain Musters tells us that they will die of starvation, a fact which probably accounts for the numerous bones which Captain Fitzroy found when he endeavoured to ascend the river to its source, in a large lake in the Cordillera. M. Rouquaud, a Frenchman, has also a fish-oil factory on the river. There is a want of water throughout a great portion of the country. This, combined with the jealousy of the Indians regarding investigations which may lead to settlements, has deprived us of the opportunities of anything but the most vague acquaintance with the riches or poverty of Patagonia. Diamonds are said to be found in some parts of it, a circumstance which need not be considered incredible, as a great part of the Patagonian geological formation corresponds with the sterile *chapadas*, where the diamond region of Brazil is situated. The valley of the Rio Negro is the forest portion of the country. It is extremely fertile, and here grapes, conifers, and apple-trees are found in such abundance that the wild Indian, descending into this pleasant dale from the windy uplands, where the chilly breezes blow from all directions, considers that he has entered an earthly Paradise. But taking Patagonia as a whole, the seasons, except in the warm valleys, may be described as "a long winter and a severe spring."* We may conclude these notes on the outlying dependencies of the Argentine Republic by some remarks on the climate generally of the country, more especially of the part which we have just left. It is naturally very diverse in this respect, owing to the great extent of latitude over which it extends. Southern Patagonia is not so inhospitable as Labrador, though both countries are about the same distance from the Equator; but it is colder than districts of Europe the same distance from the North, as it is from the South Pole. These facts may be explained by the circumstance that the cold waters of the Antarctic Ocean flow north through the Atlantic, throwing the warmer tropical stream down on the shores of Brazil and Patagonia. "Argentine Patagonia," writes Mr. Parish, "might not inaptly be termed the Sweden, and Chilian Patagonia the Norway of the Southern Hemisphere. In the north of Patagonia, and the southern part of the Province of Buenos Ayres, the climate, as regards temperature, resembles that of England; and northwards of this is the broadest part of the Republic, which contains the city of Mendoza in the far west (pp. 220, 221, 225), and Buenos Ayres in the east, and enjoys one of the finest climates in the world, rivalling that of Southern France and Northern Italy. North of this, the summer heat becomes too oppressive, and in the extreme north the climate is thoroughly tropical. In some parts of the north-west, the altitude of the country gives

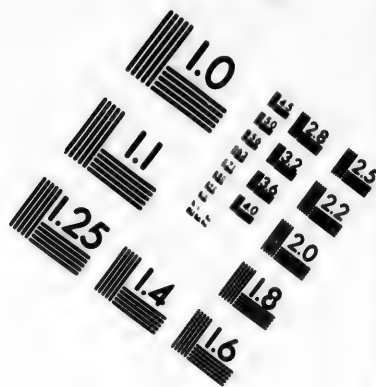
* Musters: "At Home with the Patagonians" (1871); Quesada: "Patagonia y las Tierras Australes" (1876); Moreno: *Geographical Magazine*, 1878, p. 209, and Buenos Ayres *Standard*, May 30, 1878, &c.

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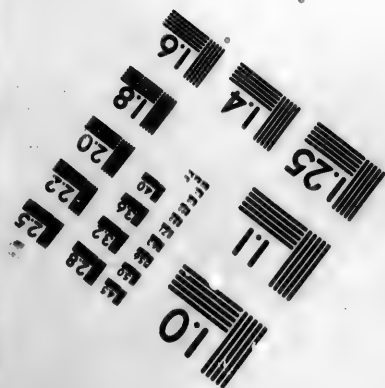
A PATAGONIAN FUNERAL.





Resolution test chart showing patterns of vertical and horizontal lines with numerical values ranging from 1.0 to 4.0.

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it a cooler climate than that of the Chaco in the same latitude. Along the Argentine slopes of the Andes, and the adjacent country, the climate is remarkable for its dryness, because the prevailing westerly winds lose the moisture which they bring from the Pacific before crossing the mountains. This peculiarity is most marked in the southern part of the continent, where Chilian Patagonia is deluged with almost incessant rain, while Argentine Patagonia is dry and arid. In the east, as at Buenos Ayres, there is more rain, which, with southerly and occasional north-easterly winds, forms the most disagreeable and unhealthy weather experienced in that part of the country. The climate of Cordoba, and also that of some of the more westerly districts, is found very suitable for consumptive patients."

THE FALKLAND ISLANDS.

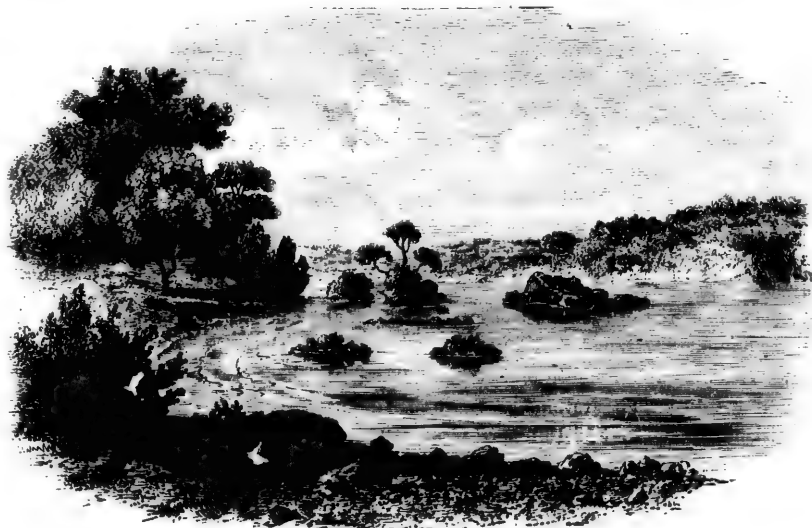
In our journey southward we have arrived at the Straits of Magellan (p. 256), and that region which borders the stormy Cape Horn. Before passing to the pleasant lands of the Pacific we must again voyage a little east. Two hundred and fifty miles from the coast of Patagonia we come to a scattered group of islets, bleak, bare, and uninviting, over which again we see the British flag waving. These are the Falkland Islands, an English Crown colony, but a colony which the Argentine Republic never conceals its opinion that on all principles of justice and international fair-play we have no right to. Discovered by Davis in 1592, they were successively held by the French and Spaniards. After the declaration of Independence, the Buenos Ayreans established a colony, but the settlement was burnt as late as 1831, and in 1833 the British Government seized the islands for the purpose of establishing there a refuge for distressed whalers or other vessels which might have got damaged in doubling Cape Horn. The Argentines claim that they were in full possession of these Malvina Islands—as they call them—when, on the 3rd January, 1833, H.M.S. *Clio* hoisted the English flag on Port Ruiz, or Soledad, and displaced the lawful owners. It is true that England claimed the dominion over these isles after the fall of the Spaniards, though at the same time the Argentines contest that they, as the rightful heirs of Spain, have the best right to them, and that when they took possession of them England raised no objections. The United States also recognised the Argentine claim; only "'perfidious Albion' took possession of Argentine property, well knowing that the young Republic was engaged in civil war, and was not in a condition to repel force by force," but only by a very wordy protest, often repeated, but as frequently disregarded. It might, of course, be added as a corollary to all this, that a nation so often engaged in "civil war" has thereby demonstrated that it has more territory than it can govern, or that if the Argentines, as the fierce rodomontade of the official document has it, would have "repelled force by force," they have not up to date attempted it. However, there is no use denying the fact that we Britons hold this sea-laved bit of old Patagonia by a tenure perhaps not more sound than some of our title-deeds to other parts of the world. The Argentines have doubtless the best of the argument, but we have the islands, and are not likely to be argued out of them. The "Autocrat of the Breakfast Table" convinced the "young man of the name of John" that though, according to his own showing, there were three Johns in one person, that

it was an illogical application of the argument to eat the three peaches on the plate. But as the fruit was eaten before the fallacy was demonstrated, the practical result was nil. And so is it with the Falklands—Q. E. D. There are two principal islands—the east and west ones—and about one hundred smaller ones,* comprising in all an area of about 6,500 square miles, enjoying a moist though very healthy climate. The islands are usually flattish, bare, treeless, in many places rather swampy, and, when they have not been long grazed on, covered with the tall tufty grass known as the tussac (*Dactylis cæspitosa*), and abounding in excellent harbours, while the shores swarm with fish, and at certain seasons penguins and seals are killed in considerable numbers for the sake of their oil. There are few high points, except Mount Adam, 2,315 feet, Jason Steeple, and Mount Viale, named after an Italian of Buenos Ayres, who, in 1871, lost his own life in trying to save that of others. In the vicinity of the little capital—called Stanley—there is some cultivation, but the islands are essentially pastoral, sheep, and not cattle, being the stock chiefly in favour, though the wool, owing to the climate, has a tendency to grow coarse. The Falkland Island Company are the chief landowners and stock-raisers. Their sheep number between 80,000 and 100,000, while their droves of horses and tame and wild cattle, herded by Argentine Gauchos, number from 19,000 to 30,000, according to different estimates. The supplying of ships with fresh provisions forms the chief occupation of the inhabitants, though necessarily wool and hides are largely exported.

The latest statistics (1875) which we have from the colony gave the population at 1,057—720 males and 337 females—which is an advance over the number of inhabitants in 1871 of 291. In 1876 the number of inhabitants had risen to 1,153, which seems chiefly due to natural increase. The revenue was, in 1875, £10,863, and the expenditure £10,587. In the island there were 2,150 horses, 24,750 tame cattle—little more than half what the returns for 1871 give—185,400 sheep, more than double that of 1871, and twenty goats, about one-fiftieth of the number four years previously. Nothing, except butchers' meat, is cheap, and wages are moderate. Shepherds, for instance, get from £50 to £84 per annum, Gauchos the same, while labourer's wages are £4 to £5 per month without food. Tradesmen are paid much more highly, and domestic servants get wages varying from £20 to £72 per annum. Either houses in the Falklands must be very dirty, or charwomen scarce, for their pay is put down in the official columns at 6s. per day. The entire prosperity of the Falklands depends on the use of the vast tracts of pasturage, which are admirably suited for sheep, the winter being much milder than in England, and the summer much cooler. The "squatters" do not own their "runs." As in Australia, they lease them from the Government, the average rent being something like £6 for a section of 6,000 acres, these rents yielding, in 1875, £1,600 8s. 7d., though even yet the colony is not self-supporting, the revenue being annually supplemented by a Parliamentary grant. At one time the sealing trade was of much importance to the islands, but that has now almost entirely collapsed. The repairing of vessels, disabled by the storms of Cape Horn, has also of late years not been very profitable to the islanders. The new order of things have prevented old and unseaworthy vessels from attempting the passage round

* The chief are the Great Swan, Saunders, Keppel, Pebble, Eagle, and Jason.

the Cape, while the fear of desertion by the seamen have also materially deterred skippers from "putting in" to the islands. The wheat trade of San Francisco is now, to a considerable extent, carried on by the Pacific Railroad, and this altered state of matters, of course, very sensibly lessens the number of ships coming round "the Horn," and naturally injures the Falklands. I have spoken of the climate. Governor D'Arcy considers that though there is more rainfall in the Falklands than in London, yet that "soaking wet days" in the Falklands are rarities. The winds are, for the most part, westerly, a Falkland saying being that the wind does not blow from the east twenty days in the whole year. The climate is said to have undergone a favourable change of late years.



VIEW IN THE STRAIT OF MAGELLAN.

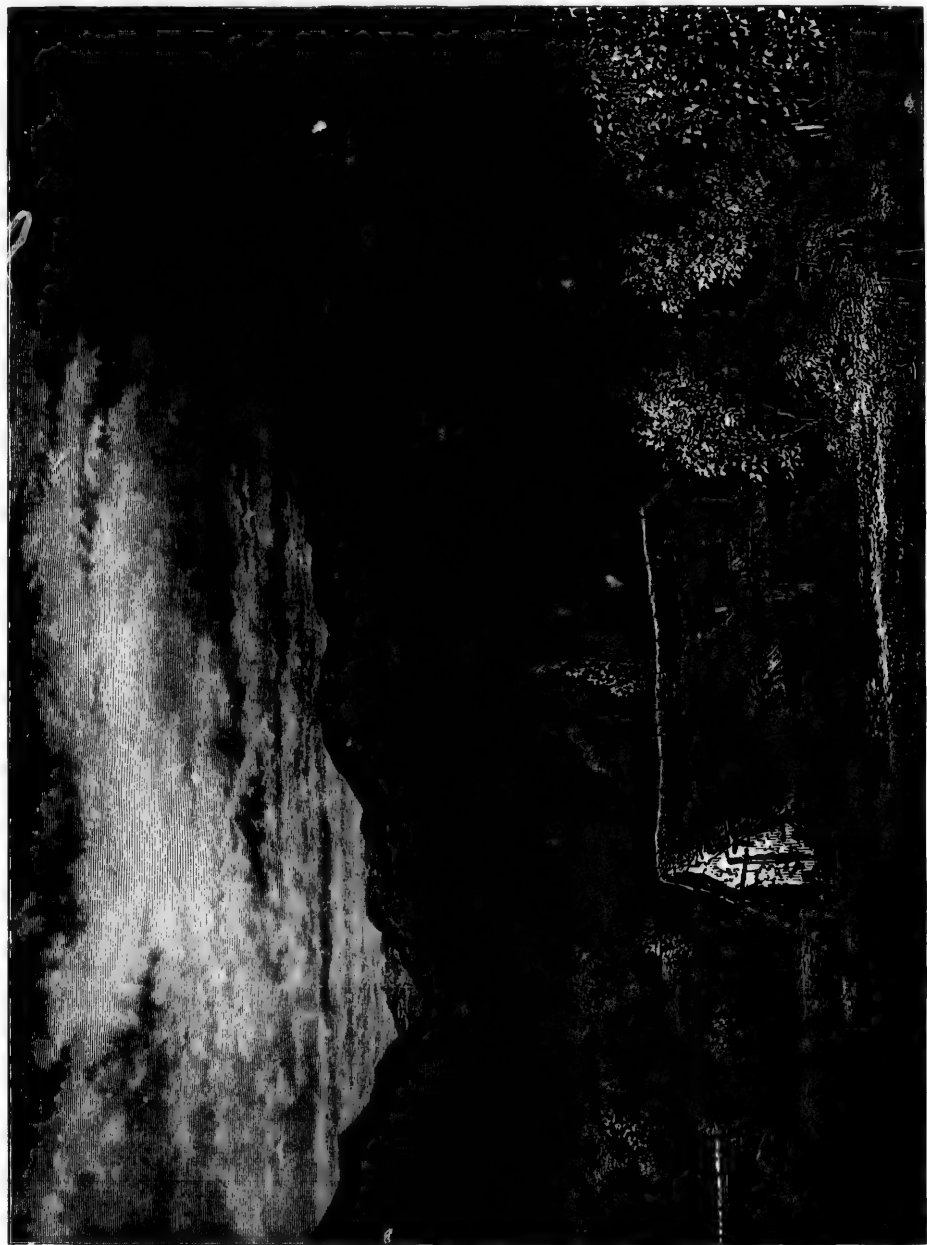
So severe were the winters about twenty years ago, that on one occasion, which the Governor describes, the herds of cattle in Lafonia Peninsula fled northward before a southerly gale, accompanied with a snow-storm of such severity, that on being checked in their stampede by the peat wall covered with gorse, built across the isthmus, they wildly leaped over a high cliff, and were dashed to pieces. Of late years the winters have, on the contrary, been so mild, that, although horses and cattle are never stabled, it is rare to hear of an animal dying of cold or hunger. The winds that blow over the Falklands, owing to their distance from any land, are all laden with iodine and saline particles, and are very pure. Hence the climate is peculiarly favourable to the recovery of those suffering from chest diseases.

Beyond those which we have here mentioned, the islands have few or no resources. Peat is practically inexhaustible, but the bright hopes which were beginning to be entertained regarding the discovery of coal on the islands have been set at rest by the

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VIEW IN A VALLEY OF THE CORDILLERA, CHILL

very painful discovery that the supposed seam was only shale. The inhabitants of the Falklands are a particularly law-abiding class, a single policeman, until recently, representing his side of the majesty of the law in the islands. There are now, in addition, a few "embodied pensioners" on the islands, though their services are scarcely necessary during peace, while they would be of little avail in time of war. The Falklands have very little attraction about them. Port Stanley, the capital, with its white cottages—"grey stone houses scattered along the side of a bare, low, bleak hill"—is not considered by strangers an attractive place. One voyager declares that, with the exception of Tristan



VIEW NEAR PORT FAMINE, BRUNSWICK PENINSULA.

d'Acunha, he cannot recollect a "more dismal, miserable" village, and one more devoid of all interest than Stanley. From the landing-place "a street, so called, leads to the top of the hill, and branching away is Ross Road, which runs along for some two miles, facing the harbour, and in front of all, the houses. At its western extremity is Government House, a plain stone building within a fence. At the other extreme is the cemetery. This appears to be the only level walk in the colony. The hills are but rarely available for a walk, consisting for the most part of little else than rock and boggy ground."* Port Louis, the capital of the colony when the French held the islands, consists at present of only one house, erected as a barrack some years ago, but as Stanley since 1842 has been the place of Government, Port Louis has been deserted. The country is bare of trees, and all attempts to introduce them have hitherto been attended with failure. Even shrubs are

* Spry: "The Cruise of H.M.S. *Challenger*" (1878), p. 301.

scarce, the only one which merits the name being *Veronica decussata*, confined to the west island.

The flora and the fauna are also to a great extent that of the neighbouring Patagonian coast. It is, however, curious that though trees are wanting in this inhospitable spot, several species of plants occur which in the Strait of Magellan country are strictly confined to the woods, and are not met with in the open plains of Patagonia. This may be due to the greater rainfall in these regions, which is much greater than in eastern Patagonia. The country is in places covered with the diddledee berry, identical with our crowberry, the balsam-bog (*Bolax glebaria*), the Falkland Island tea-plant (*Myrtus nummularia*), and the "almond flower" (*Callirene marginata*). The balsam-bog appears in the form of huge, perfectly hemispherical hillocks, of a pale and dirty yellow-green colour, and uniform surface, so hard that one may break the knuckles on them. "If the day be warm"—we are quoting Hooker's *Flora Antarctica*—"a faint aromatic smell is perceived in their neighbourhood, and drops or tears of a viscid white gum flow from various parts of these vegetable hillocks. They stand apart from one another, varying from two to four feet in height, and though often hemispherical, are at times much broader than high, and even eight to ten feet long. The very old ones begin to decay near the ground, when a crumbling away commences all round, and having but a narrow attachment, they resemble immense balls or spheres laid upon the earth. Upon close examination each mass is found to be herbaceous throughout, the outer coat, formed of innumerable little shoots, rising to the same height, covered with imbricating leaves, and so densely packed that it is even difficult to cut out a portion with a knife, while the surface is of such uniformity that lichens sometimes spread over it, and other plants vegetate on its surface, in the occasional holes or decayed places. If at a very early period a young plant of the *Bolax* be removed and examined, the origin of these great holes can be traced, for each of them, of whatever size, is the product of a single seed, and the result of many, perhaps hundreds, of years' growth. In a young state, the plant consists of a very long, slender, perpendicular root, like a whip lash, that penetrates the soil. At its summit are borne two or three small branching stems, each closely covered for its whole length with shooting leaves. As the individual increases in size, the branches divide more and more, radiating regularly from the resting centre, instead of prolonging rapidly; these send out lateral shoots from their apices, and in such numbers that the mass is rendered very dense, and by the time the plant has gained the diameter of a foot it is quite smooth and convex to the surface. The solitary root has evidently become insufficient for the wants of the mass of individuals, which are nourished by fibrous radicles, proceeding from below the leaves, and deriving nutriment from the quantity of vegetable matter which the decayed foliage of the lower parts of the stem and older branches afford." The myrtle gets its name of Falkland Island tea from its leaves having been sometimes used by the sealers who visit the island as a substitute for the Chinese herb. The almond flower belongs to the order of lilies, and is so-called from its delightfully fragrant odour. In the islands it clusters in rocks, but in the Strait of Magellan it principally occurs half buried in moss at the bases of the trees. Another plant, which the voyager to the South usually sees for the first time at the Falklands, is the gigantic *Lessonia*, a seaweed, with a "stem" as thick as the

human thigh, and five to ten feet long, with "leaves" from one to three feet in length. Those not acquainted with its nature have taken it for drift-wood, and the botanist of the Antarctic Expedition, under Sir James Ross, relates that on one occasion nothing could prevent the captain of a brig from employing his boat and boat's crew, during two bitterly cold days, in collecting this incombustible weed for fuel. The only other "natural curiosity" of the Falklands which we can find space to notice consists of the "streams of stones." These are composed of immense accumulations of great angular pieces of quartz spread out in belts, sometimes as much as a mile broad, and two or three miles long, in the valleys, extending in some instances to the top of the grey quartz hills, from which they appear to be derived. They really look as if spread out by some great river, though a glance shows that water has had nothing to do with their present arrangement or deposition.* Many have been the theories volunteered in explanation of these "streams." Mr. Darwin apparently looked upon them as the results of some great convulsion, and more recently Sir Wyville Thomson has ventured on another explanation, without, however, in any marked degree clearing away our difficulties. South Georgia—a barren group of islands lying still further to the south—is included in the colony. At one time, during the palmy days of the seal fishery, they were frequented during the summer months, but since the decay of that branch of trade they are rarely visited.

The revenue of the Falkland Islands for 1877,† exclusive of the Parliamentary grant, was £3,286, being a slight increase over that of the preceding year, while the total expenditure required to carry on the service of the colony for the year amounted to £6,266, a considerable diminution under the sum necessitated in 1876. The expenses of the colony have thus greatly decreased since 1876 (p. 255). The value of the imports in 1877 was £33,283, and the exports—wool, tallow, penguin oil, seal-skins, &c.—about £59,878. Regarding politics, I am enabled to learn little about from the official reports before me, except that Falkland legislation must be very quiescent, since, in 1877, no local ordinances were passed. The great sheep dip and scab controversy appears, however, to have agitated the islanders not a little, and His Excellency, with that sound practical wisdom which characterises him, devotes several pages of his official report to recipes for preparing "lime and sulphur sheep dip," and to the desirability of introducing a "scab ordinance," and a scab inspector to see the ordinance carried out. It is complained that the farms are under-manned in proportion to their great extent. There is hardly any tillage on these sheep and cattle "runs," and it is only of late years that kitchen gardens have been introduced into "the camp." Milk and butter are scarce. Most of the latter is imported from England, and considerably more preserved milk than fresh is used, notwithstanding the number of cattle on the islands. These and other causes have conduced to the stagnant condition of the colony. Cattle and sheep breeding, killing, clipping, or boiling down, seem the occupations of the greater number of people. The following extract from a letter written by the manager of the Falkland Islands Company describes

* Cunningham: "The Natural History of the Strait of Magellan" (1871), pp. 156-161.

† The notes which follow I glean from the latest report of Governor Callaghan, C.M.G. to the Colonial Office, which reaches me as these pages go to press. ("Papers relating to Her Majesty's Colonial Possessions: reports for 1876 and 1877, in continuation of 1877" (1878), p. 222).

the method formerly adopted by the cattle herds in slaughtering cattle:—"Cattle killing by the Company's Gauchos is carried on principally in the summer months, when the Gauchos, six or more in number, go into Lafonia with tents, and move round the coast from district to district, salting the hides on the adjacent beaches, whence they are removed by schooners. The system of killing is as follows:—The Gauchos leave the tents on horseback in the early morning, and keep together until they sight a herd of cattle; then getting as near as they can without being observed, they dash into them, each man selecting his animal, which he lassoes, one end of the lasso being made fast to the *cincha*, or girth of the saddle, the other in a noose round the neck of the animal. As soon as the Gaucho manages to throw his adversary by entangling his legs in the lasso, he jumps off his horse, which keeps all the time a tight strain on the lasso, and, approaching from behind, cuts a sinew or tendon behind the fore-quarter, which at once makes the animal helpless. The Gaucho then mounts and goes after another, with which he deals in the same manner, and so on until the cattle are out of reach of the others on the beach. As a rule animals cut down in the morning are killed and skinned in the afternoon; but there is no doubt that in former years, when cattle were more plentiful, Gauchos would cut down for a whole day, and skin the next." This cruel practice has, owing to the representations of Governor Callaghan, been discontinued, and the cattle are now killed immediately after being "cut down."

The total number of school-children enrolled in 1877 was 130, with an average attendance of 77. School attendance is irregular, and the standard of education low, owing, to some extent, to the fact that after the age of ten or twelve, children assist in various rural occupations, more especially during peat-cutting time, when labour is even scarcer than usual, and young lads can obtain good wages. Those boys who do not become labourers usually find employment in "the camp," which seems to have much fascination for the youth of the colony. With the exception of a few carpenters and masons, most of the colonial artisans come out from England.*

THE STRAIT OF MAGELLAN.

Fernando de Magellan—or Magalhaens, as his name ought properly to be written—was a seaman of Oporto, who served the king with much distinction in the East Indies. But in 1517, thinking his reward not equal to his merits, he transferred his allegiance to Charles V. of Spain. A caballero, who had won his spurs under Albuquerque, and was a friend of the renowned Ruy Falero, geographer and astronomer, was a welcome accession to the servants of His Catholic Majesty. Accordingly, on the 20th of September, 1519, we find Magellan sailing from San Lucar, with five ships and 236 men, on an attempt to reach the Moluccas by the west. What befel him on this memorable voyage—the first ever made around the world—or how he was slain in a petty squabble in the Philippines, it is not our purpose to describe. It is sufficient for us to know that he sailed from the South Atlantic, and discovered the South Pacific, and that he passed to the latter

* Report of Mr. J. Wright Collins, Government Schoolmaster at Stanley (1878).

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A FOREST VIEW ON THE BANKS OF THE RIVER SEDGER, BRUNSWICK PENINSULA.

sea through the Strait which has ever since borne his name. The Strait of Magellan has for long been the chief course between the two seas, though, owing to the bad charts, uncertain weather, and the treacherous character of the natives, many captains have preferred to risk the storms of Cape Horn rather than take the shorter passage further north. It separates the South American mainland from the broken group of the islands which end the continent under the name of Tierra del Fuego. In length it is 300 miles, in breadth it varies in different parts from five to thirty miles, and the shores are diversified in aspect, but in general rather pleasant, and far richer in vegetation than might be presaged from the low southern latitude in which it lies (p. 256). On one side is Patagonia, wooded in most places down to the very shore, on the other Tierra del Fuego, from among the valleys of which glaciers creep down to the sea, but, owing to the abundant moisture which falls, the otherwise bleak-looking islands are in sheltered places covered with forests of considerable luxuriance, though at but a small height above the sea a flora corresponding in character with that of the Arctic regions is found. The scenery is wild. A voyager describes the country in the vicinity of Port Gallant, in the Brunswick Peninsula, as "a country of, first, a series of densely-wooded, nearly perpendicular slopes; next, an almost infinite succession of grey precipices of grass and granite, with a multitude of foaming cascades pouring down their fissures; then vast tracks of spotless snow, and finally black jagged peaks half concealed by the clouds" (pp. 261, 264). These Antarctic forests probably terminate a little north of 34° S. latitude, which is also their limit on the western slope of the Andes, where, as in Valdivia, Chili owes much of her wealth to her wooded provinces near the Cordillera. That portion of the continent which extends from the Chonos Archipelago on the west coast southward is a most inhospitable part of the world. Wild tempests and almost incessant rain render cultivation difficult, and settlement all but impossible. Real forest is only found in this part in the deep valleys protected from the tempest, that elsewhere prevent the growth of trees. On the higher grounds, exposed to the fury of the frequent storms, only a few weeds and bushes maintain an uncertain foothold. The trees here, and on the shores of the Strait of Magellan, are two species of beeches, and the famous Winter's bark. The thick underwood consists of two species of barberry (*Berberis ilicifolia* and *B. dulcis*), and other Antarctic species, which we shall presently note.

Dr. Robert Cunningham,* to whom we are indebted for the best and only detailed account of the natural history of these regions, describes the country in the immediate neighbourhood of Sandy Point as covered with a forest in many respects similar to our own familiar English woods, except that there is a greater preponderance of prostrate trunks and erect whitened skeletons. The prevailing tree is the Antarctic beech (*Fagus antarctica*), but an evergreen species of the same genus (the *Fagus betuloides*) occurs more plentifully west in the Strait. The Winter's bark is also present. The first-mentioned tree is a very beautiful one, frequently attaining great dimensions both as regards height and girth, though the nuts are not over a sixth the size of those of the species with which we are familiar in England. Often in the western part of the Strait, where the evergreen beech is the prevailing tree at the sea level, and for a considerable distance up the mountain sides, a well-marked zone of the tree just noticed (the deciduous species)

* Formerly Naturalist of H.M.S. *Nassau*, now Professor of Natural History in Queen's College, Belfast.

is to be seen above the evergreen woods, at a height of 1,500 to 2,000 feet. On the summits of the mountains small stunted bushes are frequently to be met with. The evergreen beech, looked upon by the earlier voyagers as a myrtle, is on the whole the tree most frequently seen from the westward of Port Famine, throughout the Strait and along the west coast of Patagonia as far as the Chonos Archipelago, where the vegetation is rather more diversified. It does not equal the Antarctic beech in size, being rather over fifteen or twenty feet in height. The third tree, or Winter's bark (*Drims Winteri*), is a species of the family of *Magnolias*. It is a noble tree, extending throughout the wooded country of the Strait and Western Patagonia, and is even found in a slightly changed form in the woods of Chili. This tree was known to the early voyagers, who employed its smooth grey bark as a condiment and anti-scorbutic for their scurvy-riddled crews. It derives its name from Captain Winter, who was one of the companions of Sir Francis Drake in his voyage round the world in 1577-80. The bark, which in appearance is not unlike that of *Canela*, is still occasionally used as a stimulant aromatic tonic. The *Fernicia decussata* (p. 258), often twelve feet in height, and the *Fuchsia Magellanica*, which generally occurs in thickets, and affords a convenient shelter to the Fuegian huts, and food to the humming-birds, are among the other notable plants of the Strait of Magellan and neighbouring country. In these woods, woodpeckers, parrots, hawks, and other birds are found, though insect life is, as a rule, not plentiful in the immediate vicinity of the Strait. Buttercups, and a large-flowered white anemone, are common, and on the branches of the beech-trees are often found round nest-like masses, about the size of a human head, which prove to be curious leafless parasitic plants allied to the mistletoe. The name of these is the *Myzodendron punctulatum*, a plant confined to the forests of South America, from Cape Horn to Valdivia. Another parasite is *Cyttaria Darwinii*, a fungus which forms part of the food of the Fuegian Indians, but it has little to recommend it, being very tasteless and tough. Orchids grow under the trees, and a species of *Cardamine*, or ladies' smock, is common. The open flat country is dotted with shrubs and *Chilabothrium*, and is frequented by the *Bandurria*, the Spanish name for a large species of ibis,* which has given its name to these plains. At Christmas, swallows sweep rapidly over them, and small flocks of birds watch the traveller warily, and immediately on being alarmed fly to such a height that they are out of shot. Snipes, steamer ducks (the most remarkable bird of the Strait), and a host of other water-fowl make these regions lively with their clamour.†

Some parts of the Strait are bordered by towering cliffs, which rise majestically out of the fog which so often envelopes this region. Queen Adelaide Land—a large island—is, for example, composed of grey rugged mountains, capped with snow, and supporting large glaciers, while the shores in more sheltered places are covered with woods so thick that it is difficult to penetrate their tangled thickets. There is now only one small settlement in the Strait. At Port Famine, in the Brunswick Peninsula (p. 257), east of Cape Froward, the most southern part of the continent, a penal settlement was, in 1845, established by the Chilean Government, but nearly three hundred years before the Spaniards attempted to establish forts in this vicinity, so as to prevent the English from passing through

* *Theristicus melanopus*.

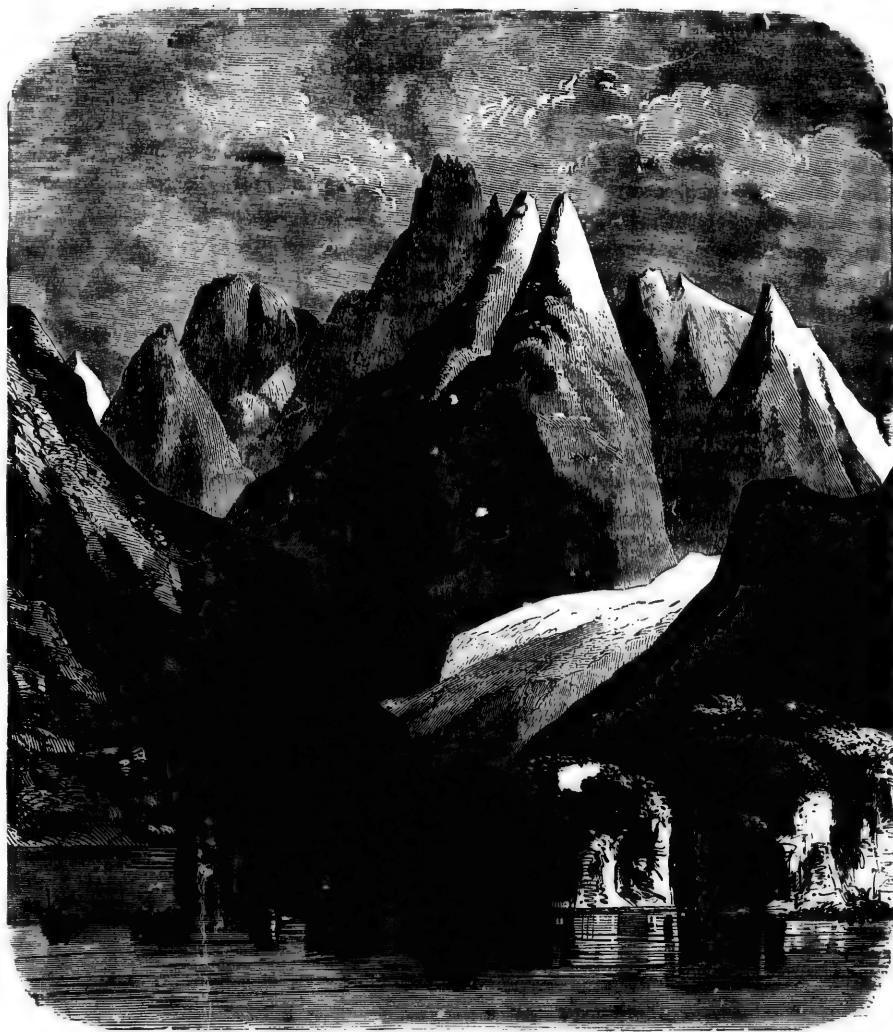
† "Natural History of the Strait of Magellan," pp. 78-91, &c.

from sea to sea. The colonists were left to their fate, and when visited six years afterwards—in 1587—by Cavendish, it was found that only twenty-four out of the original four hundred had escaped starvation. Hence the name of the spot. The convict settlement does not seem to have proved much more successful, for after being often reduced to great straits by failure of supplies, the convicts rose, killed all the officials, and though for a time they managed to escape, they were afterwards captured and punished. Port Famine seems, indeed, a spot accursed of fate, for here in the first quarter of this century one of the best surveyors of the Strait put an end to his life, his mind having given way, it is believed, under the strain of anxiety and hardship incident to his labours. At Punta Arenas (Sandy Point), on the shores also of the Brunswick Peninsula, the convict settlement which used to be at Port Famine was removed after the outbreak of the "deportees." There are—or were—in addition to the officials and soldiers, about one hundred prisoners. The buildings are so grouped as to form lines of straggling streets,



ENTRANCE TO FORTESCUE BAY, BRUNSWICK PENINSULA.

running nearly parallel to the beach. There are, in the vicinity, a considerable tract of open country, abundant forests, and a coal seam, situated about six miles inland, though connected with the settlement by means of a line of railway. Gold is also found in the bed of the Rio de Oro, though the results of washing have hitherto not been great. Settlers came here in some numbers a few years ago. There is still a colony of Chilians and Swiss at "Agua Fresca," south of Sandy Point, besides others on the Rio de Chivos. The climate is in summer very pleasant, resembling the best autumn weather in the north of England, but with the exception of rye, oats, and the hardier varieties of barley, cereals do not ripen, though potatoes, peas, cabbages, and lettuce generally come to maturity. As the Pacific Steam Navigation Company's vessels now pass through the Strait on their way to Valparaiso, the settlement ought to prosper, though in 1877 it was visited by such a calamity as that which befel Port Famine. On the 11th of November the garrison, taking advantage of some laxity in discipline, mutinied, set free the convicts, and under circumstances of abominable atrocity murdered nearly all the settlers and officials, and fled northward through the plains of Patagonia. They quarrelled, however, among themselves, and were speedily captured.



VIEW OF THE PEAKS IN THE VICINITY OF ADMIRALTY STRAIT, TIERRA DEL FUEGO.

It has since been mooted by the Chilian Government to entirely remodel the place, eliminating from it the convict element, and converting it into an agricultural, trading, and mining settlement.

TIERRA DEL FUEGO.

This, the southernmost part of America, is in reality only a broken group of islands. The largest of these is King Charles's South Land, 500 miles long by 300 broad. There

are, in addition, Hoste, Desolation, Clarence, and Navarin, of considerable size, and a great many all much smaller. Cape Horn is the southern promontory of a small isle of the same name. Towards the Pacific side the islands are, for the most part, elevated, rugged, and broken, but those facing the Atlantic are, as a rule, lower, and wooded, but the general aspect of the country is wild, desolate, and uninviting in the extreme. A low undergrowth covers the space between the trees, and everywhere fallen timber—damp, decaying, and dismal—renders travel over the country next to impossible. Yet certain localities are, as we have already indicated, exceptions to this rule. One of these is Picton Island, which resembles the south-west coast of England: the south part of it is moor and down, the north is covered with thick woods. Lakes abound, and millions of familiar-looking water-fowl, with their unceasing din, for a time make us forget that this pleasant region is so far in the outer world. Though volcanic products are commonly found, and many of the mountains are extinct volcanoes, yet there is no appearance of any of them having been active since man became acquainted with this region. The name *Tierra del Fuego*—"Land of Fire"—which the early explorers applied to it, was owing to their having seen a peculiar light over the land. This is still sometimes noticed, though the cause has not been explained. The highest mountains—Sarmiento and Darwin—are from 6,000 to 9,000 feet in height, and it is almost needless to say are perpetually capped with snow (p. 265). The inhabitants we have already described,* and need only touch upon in this place. They number about 2,000, scattered in little tribes over the coast of a territory containing something like 26,000 square miles. They are a stout race of Indians, mostly in the lowest state of degradation, and physically short, ugly, and beardless, with long black hair. They are, however, said to be robust, and without any peculiar diseases, though continually living from hand to mouth, exposed to the vicissitudes of one of the worst climates in the world, with scarcely more clothing than a bit of skin, which is shifted in accordance with the direction from which the wind may be blowing. They live on shell-fish, fish, a fungus found in the woods (p. 263), and—briefly—on anything they can get. Of late they have contracted a taste for smoking, and pester the crews of passing ships for the "tabāac" they value so highly. When driven to extremities they kill their dogs, the only domestic animals they have, and it is said will even resort, when hard pressed, to their old women as an article of diet. Several attempts have been made to convert them to Christianity, but hitherto without much success. In 1850, arrived Captain Allen Gardiner's party, but from the day of their landing they met with nothing but opposition and disaster, and in 1851, owing to supplies not reaching them from home, the whole party died of starvation. In 1854, another effort was made to found a mission party, but after many vain endeavours to gain a footing the attempt was abandoned. Still later (in 1855), the South American Missionary Society essayed the conversion of the Fuegians. Instead of trying at once to form a settlement in *Tierra del Fuego*, they selected Keppel Island, one of the Falklands, as a basis from which they might leaven the savagery of the mainland. Here they convey such of the Patagonians and Fuegians as are perfectly willing to come, instruct them in the rudiments of the Christian religion and civilisation, meanwhile engaging them in farm labour,

and taking them back to their own country when they desire to return. Some of them will stay a few months, others two, three, and even six years. When they return they have a good outfit given them, and if they are thought likely to take care of them, goats and cows are added. The consequence is that the work on Keppel Island has led to a promising centre of civilisation in Tierra del Fuego itself. There is also a missionary station at Ooshooia (p. 268), on the mainland, which appears to be prospering in a wholesomely quiet way. It was established in 1869, by the Rev. Mr. Stirling, now Bishop of the Falklands, who took up his residence there in a hut, and was for a considerable time left to face the dangers of his position alone. The natives are now learning the blessings of civilisation, and their kindness to the shipwrecked crew of the *San Rafael* in 1877 is in marked contrast to their former barbarities to those who fell into their hands. The following instances of this are given on the authority of Admiral Sullivan. The boats of the *Beagle*, when on the surveying expedition of the late Admiral Fitzroy, saved the crew of a shipwrecked vessel some distance to the west of the Beagle Channel. So great was their dread of the natives that the seamen had stockaded themselves, and prepared powder, in order that, in the last extremity, they might blow themselves up rather than submit to the cruel mercies of their brutal enemies. In 1853, a California-bound vessel was stranded. The Fuegians came down in large numbers, and plundered the ship, and set fire to the cargo. The crew fought for their lives and their vessel, and succeeded in bringing her to the Falklands. There are other and more recent cases, though now that the traffic is chiefly through the Strait of Magellan, these disasters will, independently of the fact of the lessened barbarism of the Fuegians, be rarer and rarer. It is proposed to establish a second missionary station, so that in time there is hope of the Fuegians, who are still, notwithstanding the efforts described, for the most part in a state of the rudest savagery, being induced to imitate the better ways of life of that God-like man, whose likeness they so distantly bear.*

Yet Señor Moreno, a later explorer of these regions, is not inclined to take a pessimist view of the future of northern "Fireland," at least. The western part, both of Patagonia and Tierra del Fuego, is boisterous and rainy almost all the year round, and glaciers extend to the sea. But on the east side those sudden atmospheric changes, which cause so many shipwrecks, are unknown. "I can assert," writes this traveller, "from my own observations, and what I have learned, that the climate from River Santa Cruz to Cape Horn may fairly be compared to that of Great Britain from the English Channel to the north of Scotland. On the high lands it is dry, with night dews, but little rain. In winter snow falls, but in spring, summer, and autumn, the climate is delightful, with some few days of intense heat. In the Strait it rains oftener—about a third of the rainfall in Buenos Ayres—but the snow keeps the soil moist. The winds are very variable, those from the poles prevailing. January, February, and March are dry: snow begins to fall in the month of April. In winter the mean temperature at San Point is 3° centigrade about zero; in September and October, storms; and November and December, dry. All this makes the country healthy, and epidemics

* The data are given on the authority of the Bishop of the Falklands and Governor Callaghan. See also the Voyages and Sailing Directions of Fitzroy, Weddell, MacDougall, and Snow.

unknown. The vegetable productions are numerous. Potatoes yield thirty to fifty for one, and flourish splendidly at Santa Cruz. Wheat can be grown there and at Rio Chaco, but not at Sandy Point: but oats, barley, and above all vegetables, grow to a prodigious size at the latter place. Tierra del Fuego, at Isla Grande [King Charles' South Land], has a climate like the Falklands, where sheep flourish so well. Southwards at the English settlement of Oosnooia, twenty leagues north of Cape Horn, cattle thrive, and most vegetables also. The aborigines live almost naked, and humming-birds and parrots are seen, so the climate cannot be very inclement." This may be somewhat too bright a picture, but there can be no doubt that in the Strait of Magellan, at least, settlements might prosper, and are likely in future to do so if the coal mines turn out prosperously. In 1875 the Chilean settlers there saved 146 persons from drowning, and more could have been rescued were there lifeboats and proper appliances at hand.

At one time the sealing trade used to attract a good number of adventurers to the vicinity of Cape Horn, and the Antarctic island lying still further south. Sea-lions (*Otaria jubata*) may yet be seen in abundance in and about the Strait. The fur-seal (*Arctocephalus Fulklandicus*, p. 269) is also occasionally sighted. The sealers on these Antarctic islands are for the most part from the United States. They are landed by their vessels, and then separate in little detachments, each detachment having a well-defined beat. They live in filthy huts sunk in the ground for warmth and protection from the gales, which often blow with great violence. After a time the schooner returns for them and their capture. Meantime, the men lead a lonely life, living on penguins, young albatross, and sea-birds' eggs. Their gains are not high. They usually sign an agreement for three years, at the expiration of which period, if they have had a lucky season, they are possessors of £50 or £60 to return home with, and perhaps to be squandered in a couple of months.* But it is further south that they are found in the greatest abundance, though nothing like to the extent they are in the North Pacific, on the shores of Behring Strait.

Penguins (*Spheniscus Magellanicus*) are exceedingly common about here. Dr. Cunningham describes them as standing erect and staring "at us in a stupid manner for a few moments, and then shuffling them, their little wings hanging limp at their sides, and their dark grey and white colouring and reeling movements suggesting a drunk and disorderly funeral procession. When hard-pressed they abandoned the erect position, and crouching down on all-fours, if I may be permitted the expression, ran along like rabbits at a very rapid rate, using their wings as fore-legs, till they gained their burrows, fairly esconced in which they faced their pursuers, and slowly turning round their heads from side to side, barked and brayed in the most ridiculous manner, offering a stout resistance to being captured by biting most viciously with their strong bills. Whilst contemplating one individual in its den, I was suddenly startled by a loud 'Ho-ho-ho-ho-ho' close to me, and turning round perceived another bird, which had boldly walked out of a neighbouring burrow, and was thus addressing me." It is, however, the cormorant (*Phalacrocorax carunculatus*) which is the most characteristic, or at all events the most numerous bird of the region. In the island of Santa Magdalena, in the Broach Reach of Mageilan's

* Spry: *lib. cit.*, p. 103.

Strait, the same writer describes a cormorant "rookery," as containing the nests of these birds congregated literally in thousands, forming a dense black mass covering a space of many yards. On being disturbed they arose in a black cloud, almost concealing the heavens from view, and waving the air with their wings, so as to produce a sound like a strong breeze blowing, mingled with the discordant screams of skua gulls, which lived in the colony with them. The cormorants' nests were on the ground, arranged in almost mathematical series, exactly a foot of space intervening between each nest. Each was in the shape of a flattened mound excavated on the top, formed of dried grass and other herbage baked into a solid mass with earth and guano, and most of them containing two



THE FALKLAND ISLANDS FUR SEAL (*Arctocephalus Falklandicus*).

to three greenish-white eggs, about the size of that of a domestic fowl, and with a rough chalky surface. Notwithstanding the abundance of birds, there is no chance of guano in any quantity being obtained in this region. No doubt the ordure of the cormorants and penguins by this time has accumulated quite as much as on the coast of Peru. But Peru is an exceptionally dry country, and accordingly the guano remains on the rocks, while the southern part of the continent is, on the contrary, exceptionally wet, so that the birds' excrement is swept off the cliffs. The soil must, however, be impregnated with it to such an extent that if there are ever settlements of any extent in these regions, it would pay to dig earth from the vicinity of the rookeries, the position of which is such that the guano cannot have been swept into the sea. The "otter," which ranges from the Chonos Archipelago, as far south as the Strait of Magellan, is the *Lutra Chilensis*, a land species, though taking to the sea for food, and no relation of the true sea otter, of which we have already made the acquaintance in the north (Vol. I., p. 304).

CHAPTER XVII.

THE REPUBLIC OF CHILI: GEOGRAPHY AND HISTORY.

FROM Cape Horn northward the exposed coast is a wild broken archipelago of islands and fjords, bleak and forbidding, but, when sheltered from the storm, covered with vegetation, and even forests of the usual Magellanic type. Glaciers creep down the valleys, and in some cases discharge icebergs, from their termination, in the sea. The scream of sea-birds—the albatross, the penguin, and the wingless steamer duck,* which paddles with its rudimentary pinions along the surface of the sea so fast as to well deserve both its modern name and its older one of race-horse—are about the only audible signs of life. Here we see the fjords, which, as we have already noted (Vol. I., p. 71), are, in all probability, the beds of old glaciers; but these entirely disappear when we get beyond the regions of snow and glaciers. The scenery is, however, very fine, and as we go further north gets all the pleasanter, in so far that the great mountain cliffs, and the rushing cataracts which pour down among them, are varied by the parti-coloured foliage of trees, a patch of pasture ground, or a little village peeping out through a gap in the forest. All this time we have been sailing along the shores of Chili, but it is not until we come to the island of Chiloe that we can say that we are fairly within the Republic of that name. Even then the territory is partly Araucanian, and, as we shall see by-and-by, the Indians of this region have never yet fairly given into the whites, and are, indeed, owing to the difficulty of dealing with them, really independent. The island is nearly 120 miles in length, 50 miles in its greatest breadth, and in all contains about 5,200 square miles. The seaward, or western shore, is high and steep, but the eastern is lower, and much more irregular in its outline. The interior is mountainous, and dotted with lakes, one of which, the Lago de Cucao, is of considerable size. Ancud, a town of 7,000 inhabitants, is the capital, but though regularly built it is dirty, squalid, and dismal-looking in the extreme. The inhabitants seem all tinged with Indian blood, and are not a prepossessing set of people. The voyager, who has arrived from the Strait of Magellan, feels that the jump from savagedom to civilisation is, so far as the physique of the Chilotes is concerned, not very great, the clothing and other Caucasian surroundings being the chief differences which he detects between the friends he left behind and those whose acquaintance he is now making. The complexion of the people is very dark, and their dress the Chilean national poncho, “over a shirt and trousers generally very much the worse for wear.” Most of the houses are wooden, with steep roofs often thatched, and “displaying a deeply concave curve and projecting eaves.” The cathedral is also of wood, and rather woe-begone, but is said to be good enough for the rapacious and profligate priesthood who officiate in it. The streets are steep and very crooked, and, where paved at all, are covered with a causeway of round stones, a day’s meandering over which gives the unpractised pedestrian

* *Micropterus ninerous*.

some idea of the feelings of the pilgrim who walked to the shrine with unboiled peas in his shoes. Dr. Cunningham describes hawks and vultures perched on the roof-trees of most of the cottages in the vicinity of the town, great lean pigs, covered with long black hair, prowling about the doors, and unhappy-looking curs barking at the passers by until they are out of sight. Banks of foxglove are common, and among other plants the handsome Chilean nettle (*Loasa Chilensis*), endowed with various stinging properties, is among the more common plants, which the almost constant wet weather causes to spring up rankly in every direction. The total number of inhabitants in the island, which is a province of Chili, was, in 1875, 64,536. Settled by the Spaniards very soon after its discovery in 1558, it was also the last locality where the rule of His Catholic Majesty was maintained: the Spaniards were expelled from Chili in 1818, and did not entirely desert Chiloe until 1826. The fine Chilean cedar (*Fitzroya Patagonica*), the planks of which are exported, constitutes its chief riches. Next comes the potato, which is a native of the island, and is produced in great quantities in places where the soil is being cleared of forest.* Coal beds have been discovered on the island, and altogether, notwithstanding its dampness, Chiloe is not the worst part of the Chilean Republic.

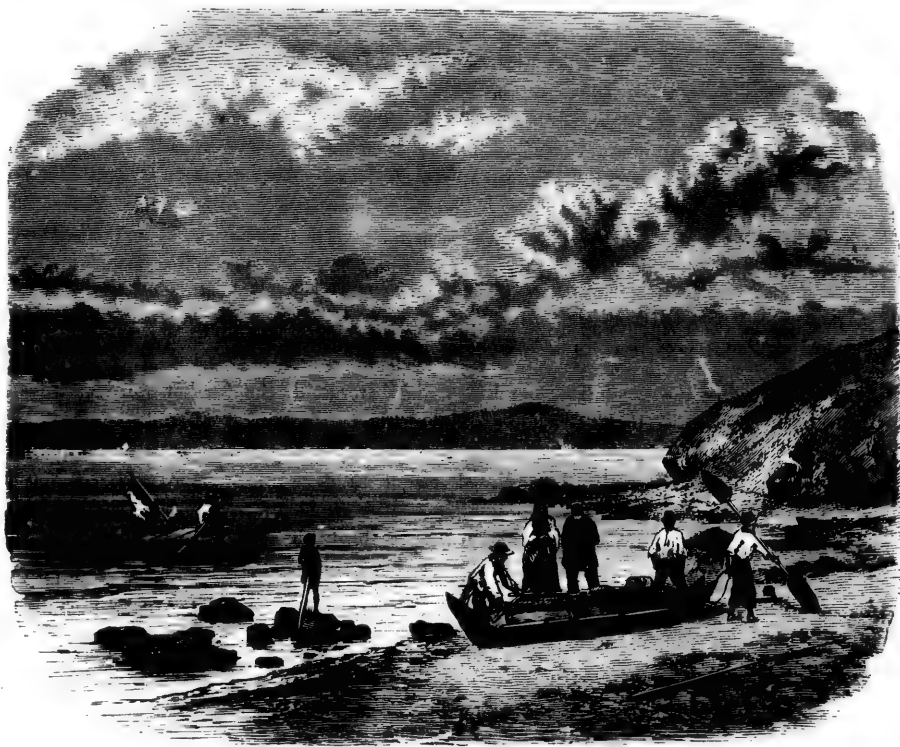
APPEARANCE OF CHILI.

The country to the north becomes barer, and barer still, the further we depart from the region of frequent rains, to the one where little or no rain at all falls, until at last we sail into the harbour of Valparaiso. At first sight the "Valley of Paradise," as the name signifies, strikes the disappointed visitor as a sad misnomer. Physically, at least, there are few of the attributes of Paradise about it. Coming from the gorgeous tropics of the north, where the vegetation comes down to the water's edge, from the bright islands of the Pacific, or from the bleak, but still wooded south, the country first seen looks bare and uninviting. From the deck of a ship in Valparaiso Bay (p. 285) the coast appears very barren, and the weary eye wanders from one sandhill to another for some bit of refreshing green to light upon. But there is no relief from the omnipresent sandy red soil, until, as the haze clears away, the huge range of the Andes, with their eternal caps of snow, and above all the great volcano of Aconcagua, stands out in all its bold relief, from the bare and altogether unimpressive foreground. Chili, in reality, as Sir Horace Rumbold, H.M.'s *Chargé d'Affaires* points out in his masterly report upon the country—and which constitutes, perhaps, the best account of it we have in the English language†—is a strip of coast land pent in between nearly the loftiest

* The native country of the potato has been the subject of much discussion. It has been found wild on the Peruvian coast, as well as in the southern parts of Chili, and the mountainous region of the Argentine Republic. The Spaniards are believed to have brought it to Europe from Quito, but it was not for more than half a century after it was known in Italy and Belgium that Sir Walter Raleigh's, colonists brought it to Britain, and planted it on Sir Walter's estate near Cork.

† "Reports of Embassy and Legation," Part III. (1876). In what follows I have taken advantage of his data, and also those with which Mr. Markham has annotated it (*Geographical Magazine*, 1877, p. 90), from his own observations and the official *Anuario Hidrografico*, Vol. II., of Capt. Vidal Gormaz.

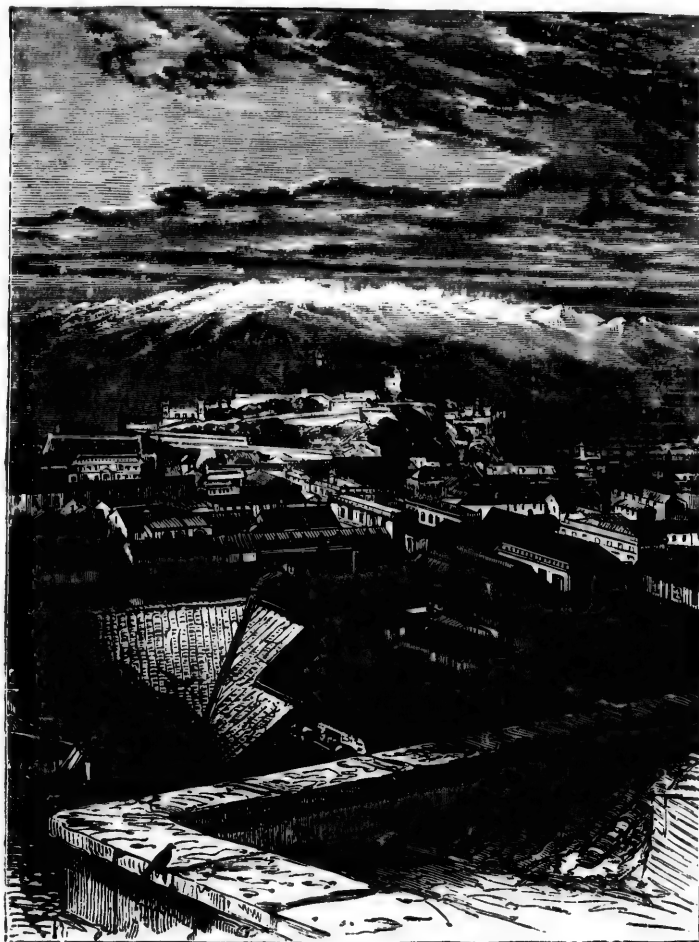
mountains and the broadest ocean of the globe, and containing 220,000 square miles. It extends for 2,270 miles southward from Peru to Cape Horn—if we recognise Tierra del Fuego as belonging to any one, though, in reality, the Argentine Republic claims it, and England, by right of the toil and treasure spent on its survey, has the best title to it. In breadth, however, it is very narrow, varying from the sea to the borders of



CHANCO INDIANS, WITH "BALSAS," OR RAFTS OF THE BALSA WOOD.

Bolivia from 40 to 200 miles. The principal part may be described as one broad valley running north and south, with narrower lateral valleys, each rising step-like above the other, to the foot of the giant wall of the Andes. Then above these fertile valleys comes the Cordillera (Plate XXIX.), with a mean height of 11,830 feet, but with numerous far loftier peaks, among which must be enumerated twenty-three volcanoes. Greatest of these is Aconcagua, 22,296 feet in height, which is so marked a feature in the view from Valparaiso, Tupungato, 20,269 feet, and Villarica, 15,996 feet above the sea. As a type of the volcanoes, we have figured (p. 289) the crater of that of Antuco, in the province of Concepcion, close by the Lake of Laja, which laves one side of it. The western slope

of the Andes is, however, steeper than the eastern declivity. Hence a journey from Chili to the Argentine Republic is more difficult than a trip in the contrary direction, the mountains to the west descending by a series of terraces, which terminate in the great plains, or



VIEW OF THE CITY OF SANTIAGO, THE CAPITAL OF CHILI.

Pampas, which we have lately left. For eight months in the year, these passes are open, but no wheeled carriages can be used in them—only mules. Indeed, in some of the more rugged ones, the traveller has still to be borne, in a kind of chair, on the backs of Indians, more sure-footed than even mules. Some of the passes are very high, ranging from 14,770 feet, which is the elevation of that of Doña Ana, to the Planchon,

11,455 feet, but that part of the Andes bordering Atacama may be crossed all the year round, snow rarely accumulating to any great extent on the mountains in that direction. In so volcanic a country earth shakings, as might be expected, are common. There are frequent *tremblores*, or shocks, which do no harm, unless they are followed by the *terremoto*, or actual earthquake itself, though the Chilian opinion is that when there are frequent shocks there need be little alarm about an earthquake, which, in reality, is rather rare in Chili, one occurring only about once in every ten years, and the same province being rarely the focus of such a visitation oftener than about twice in a century.

Lakes fed by little rivers are common in the inland valleys. Most of these abound with fish, and are frequented by aquatic birds. The greatest of them is Llanquihue, 107 feet above the sea, at the base of the volcano of Osoino, and in length thirty miles by twenty-two broad. Another, a little larger, is Lake Ranco, and in the vicinity of the city of Santiago, Lake Aculeo, occupying between 8,000 and 9,000 acres. The lakes near the coast are mostly brackish, while those in the interior are filled with water fresh and pleasant to the taste. The Chilian rivers are in no case large, and few of them are navigable for long distances. They are nearly all fed by the melting of the snow, in the Andes, and are naturally more numerous in the south than in the north of the Republic, where, however, they serve an excellent purpose in providing means for irrigating the land, which would otherwise be barren parched plains. The largest of these streams is the Bio-bio, which flows rapidly from the Andes, and after describing a course of 220 miles, falls into the Pacific. It is navigable for barges and small steamers for about 100 miles from its mouth. Mineral springs—chiefly saline and sulphureous—are common, some boiling, and all of them above the ordinary temperature of the soil. In addition to many others, there is at Chillon, in the department of the same name, a famous bathing establishment much frequented by the sick folk of those parts of the world. The establishment is on the west flank of the Cerro Nevada, at a height of 2,050 feet above the sea, and contains in close proximity cold and hot, sulphureous, ferruginous, saline, and alkaline springs. From December to April, the gouty, the rheumatic, the dyspeptic, and the people troubled with skin diseases flock thither in such numbers, that in its own languid, invalid way, this mountain watering-place enjoys a kind of "season."

CLIMATE.

Extending through so many parallels of latitude, from the parched deserts under the tropics of Capricorn to the moist regions of Tierra del Fuego, Chili has necessarily a variety of soils and climates. In the north is the beginning of that terrible desert of Atacama, which stretches in Bolivia and Peru, dry, fruitless in vegetable products, and repulsive to men except for its mineral wealth (pp. 176, 277, 280). In Central Chili are agricultural settlements, wheat farms which supply the great flour mills of the vicinity of Valparaiso, and the regions in which all the cities and ports are situated. In the south again—as we have seen—are the forests and lakes of a cold, rainy zone, which one scarcely associates with a country bordering in another direction on Peru, partially under the tropics, and notorious for being rarely visited by a drop of rain. Again we must remember

that about one-fourth of the country is raised very little above the level of the sea, while another quarter of it attains almost to the limits of perpetual snow. In Middle Chili, June, July, and August are the rainy months, and during that season the south wind, which blows all the rest of the year, changes to the north, varied occasionally by a dry breeze from the east. In Santiago (p. 273), the capital, the mean annual temperature is 55° Fahrenheit. In Valparaiso it is a little higher, and in the more elevated regions somewhat lower. In the province of Coquimbo there are "four or five showers of from five to ten hours," and at Atacama only an occasional mist. The Chilean spring begins in September, the summer in December, the autumn in March, and the winter in June. Nearly all products of temperate and sub-tropical regions, therefore, prosper in some part of the country. Valdivia and Chiloe, for instance, export timber, potatoes, wheat, rye, barley, and flax, Concepcion and Aconcagua, where irrigation is necessary, flax, maize, grapes, figs, olives, peaches, and melons, and the northern parts oranges and lemons.*

HISTORY.

Who the early inhabitants of Chili were, cannot now be clearly made out, for long before the advent of the Spaniards the aborigines had got mixed up with the Peruvians, who had gained the mastery over some portion of it, and Quichua words had crept into the Chilean dialects. The name of the country—Chili or Chile—is not derived, as is sometimes stated, from "the Peruvian word *tehile*, snow," *riti* being the Quichua name for this substance, but most probably from *cheri*, cold. It is believed that the Peruvian Incas first began the conquest of Chili about A.D. 1460, but found their match in the warlike Purumauc Indians, who, being joined by the Pancones of the Araucana, and the Cauquenes, compelled the invaders, after a desperate battle of four days, to retreat, and fix the southern limits of their empire at the river Maule. The Spaniards began their conquests soon after their arrival in the country, but were for some time unsuccessful, and it was not until 1541 that the famous Pedro de Valdivia founded the city of Santiago on the Mapocho, and so became the first permanent settler in Chili. Three years before his arrival a young soldier, Juan de Saavedra, discovered the harbour of Valparaiso, and, in honour of his native village in Spain, gave it the name it now bears. But he was never destined to see his home again, for he was hanged in Lima by the cruel Carbajal. This name Valdivia, however, confirmed, and made the place the port of Santiago. How the Araucanians rose, the battles which ensued, the treachery of Lautaro, and the final capture and death of Valdivia, the conqueror of a country, for the time being, and the founder of a score of towns and fortified settlements, form most romantic episodes in the works of the early chroniclers. Henceforward, for 180 years, there was savage warfare between the Araucanians and the Spaniards, who had always great difficulty in holding their own with the race who, up to the present time, have maintained a partial independence, and within late years have again essayed the arbitrament of battle with the descendants of the conquistadores, who, after gaining their own freedom, were

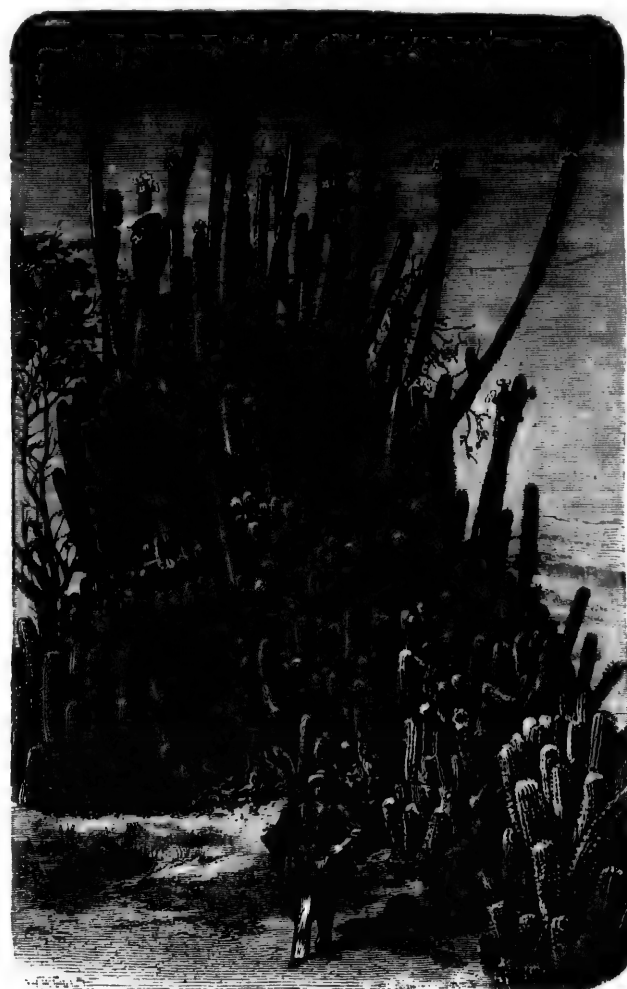
* Black and Walters.

disinclined to grant the same boon to the warlike aborigines, who had merited the recovery of what they had only partially lost infinitely better than the Chilean whites themselves.

It is from these early conquerors that we know about the primitive inhabitants of Chili. Even then it is little that we can gather from their inconsequential, albeit often quaint and graphic narratives. Of this much we are certain: the valleys of Central and Northern Chili were inhabited by a people more allied to the Araucanos, or Araucanians, than to the Incas, while along the coast dwelt a peculiar tribe of fishermen called Chancos (p. 272), who, Mr. Markham tells us, are yet to be met with at Cobija and other parts of the Atacama desert. In the latter region there is still a tribe with a peculiar language, vocabularies of which have been collected, and which is quite distinct from Quichua or Aymara (p. 180). These Chancos are in all probability only northern offshoots of the Araucanians, as their language is much the same.* The next two hundred years were occupied in continual guerilla warfare with the Araucanians, with the result that sometimes the one, sometimes the other, were victorious. For instance, in 1599, Martin Garcia de Loyola, the Governor of Chili—which was under the Viceroyalty of Peru—was slain by the Araucanians. He was the nephew of Ignatius Loyola, and the husband of an Inca princess. In that year, also, the towns of Valdivia, Imperial, Angol, Chillan, and Concepcion were destroyed, the male inhabitants killed, and the women carried away into captivity. At last—in 1640—through the intervention of the Jesuit missionaries, a truce was made with the Araucanians, and for a time the land knew peace. Meantime, Central and Northern Chili were getting settled, towns were increasing, and a trade with Peru was springing up. The settlers were chiefly from Aragon and Biscay. The climate was far more pleasant than that of most other parts of the Spanish Empire in America, and though there were not to be made in Chili the fortunes which the adventurers to Peru and Mexico accumulated, yet the appointment of Captain-General was coveted because it was a stepping-stone to the vice-regal throne of one of these countries. Hence we find that several of the rulers of Peru were originally engaged in the administration of the Chilean provinces—among others de Cañete, de Superunda, Amat, Jauregui, and O'Higgins. Brief as must be our sketch of Chili, it is impossible to pass over the name of the latter remarkable Viceroy. As his name tells, O'Higgins was not to the Spanish manner born. Like many another soldier, famous in the annals of both new and old Spain, the future Grandee was of Irish blood, birth, and breeding. It does not appear that he was even descended from one of the multitudinous monarchs who figure so extensively in Milesian history, and who, judging from the innumerable multitude of those who claim descent from them, must have left behind prodigious families. Ambrose Higgins was in reality a peasant's son, and his first connection with the aristocracy was to carry letters to the post for Lady Beective, of Dangan Castle. But young Higgins had an uncle a priest at Cadiz, who took charge of the "gosoon's" education, and in due time despatched him to seek his fortune—or to die in South America. At first there seemed much more likelihood of his accomplishing the latter alternative than the former, for the profits of the little shop which he opened under the walls of the Lima Cathedral was but a poor foundation on which to build the superstructure which he afterwards reared. Indeed, the shop did not

* Vicuña Mackenna: "Historia de Valparaíso," cited by Markham: *Geographical Magazine*, 1877, p. 91.

pay, and so he left Peru for Chili in 1769, and having shown some engineering talent, received a commission in the Engineers sent to strengthen the fortifications of Valdivia. From



CLUMP OF CACTI IN THE DESERT OF ATACAMA.

a small success he advanced to a greater. He punished one tribe of Indians, and then conciliated another, until what with fear and what with the "blarney," which national quality never deserted him, Higgins went on until he had won over most of the refractory tribes of Chili. The wisdom of his policy was recognised by the king making him colonel,

and Count of Ballenar. Then it was that the O' began to appear before the ex-post-boy's name, and who also about this period seems to have discovered that he was descended from some Hibernian noble of whom the heralds have kept no record. Soon after we find him installed Governor of Concepcion, where he entertained La Perouse, who wrote so strongly in his favour that Louis XVI. of France applied to the Spanish Government for his promotion. So in 1788, General Ambrose O'Higgins, with a new title of Marquis of Osorio, in addition to his old one of Count of Ballenar, became Captain-General of Chili, and entered Santiago in triumph, just nineteen years from the day when he first appeared in Chili as a bankrupt tradesman in search of bread, and something to do. O'Higgins still lives in the memory of his adopted countrymen as one of the best rulers that Chili ever had. He ameliorated the condition of the labourers by suppressing the "ecomendadas," or fiefs, made the road from Valparaiso to Santiago, and all the time he was occupied with the high affairs of State, sent home money to his poor relations in Ireland through Father Kellet, the parish priest. Finally, he became Viceroy of Peru, thirty-three years from the date of his landing a friendless adventurer, and after holding office for four years, died in 1801, over fourscore. No man ever served Spain more faithfully, and yet did more for the colonists themselves, than this man of Irish descent and humble antecedents. To the last he had many of the virtues, and a few also of the weaknesses, of his race, and though he never again saw the green isle he loved so well, yet the tradition of his strong Irish brogue and his kindly heart is still fresh in Lima and Santiago. It is curious to find that in two critical crises both Peru and Chili were ruled by men of Irish birth. At the time that O'Higgins was carving out a career for himself in Chili and Peru, O'Donoghue was doing much the same in Mexico, in which country he died in 1821, as Viceroy. General O'Reilly, who commanded the Spanish army at Cento, as well as Count O'Reilly, commander-in-chief of the Spanish army, were, it is needless to say, countrymen of O'Higgins, and not to enumerate the hundreds of less noted officers who fought in the War of Independence on both sides, it may be added that Field-Marshal Coppinger, also an Irishman, was the last man who held San Juan de Ulloa for the king.* O'Higgins' son was that Bernardo O'Higgins who, next to his father, is about the greatest name in the annals of Chili. He was Generalissimo in the War of Independence, and for some time Dictator, though he died in exile, having experienced the ingratitude which Chili, like the other Spanish Republics, accorded to those who spent their lives in her service.

The story of how Chili attained her independence is at first eventless, for freedom came to her almost without striking a blow. The country simply took advantage of the disturbed state of affairs in Spain to throw off the yoke of the mother country, summon a Congress, and pass many excellent laws, reforming the load of hideous abuses which had grown up under the Spanish rule, but, as I have shown in another place, leaving some of the worst untouched, the people having been so demoralised by long misrule as to have lost, to all appearance, the art of seeing such matters in their true light. Affairs, however, seemed likely to prosper favourably, when the

* A list of all the Europeans who served in the War of Independence will be found in the Appendix to Markham's "Travels in Peru and India" (1862), and in Mulhall's "English in South America" (1878).

ambition of three brothers, named Carrera, wrecked all that had been attained so easily. They and their followers forcibly dissolved the Congress, and made themselves arbitrary rulers. This gave an excuse for the Peruvian Viceroy to interfere, by marching troops into Chili, and after much variable fortune, succeeded in thoroughly routing the patriots, and reinstating the rule of the King of Spain throughout Chili. "For three years," writes Mr. Markham, "Spanish power was again dominant in Chili. Osorio entered Santiago in triumph, where he arrested many of the principal citizens, confiscated their estates, and sent them prisoners to the island of Juan Fernandez. His troops indulged in unrestrained robbery and licentiousness, and his successor, Marco, even excelled Osorio in tyranny and oppression. But the people were unsubdued. A barrister, named Manuel Rodriguez, raised bands of patriot guerillas in the north, while others, under Freyre and Neira, seized Talca, and harassed the Spaniards in Southern Chili. In 1866, San Martin, the Argentine General at Mendoza (p. 220), matured and executed one of the most brilliant military manœuvres of this century. He resolved to cross the Andes with an invading army, and drive the Spaniards out of Chili. His first aim was to divert the attention and divide the forces of Marco by making him believe that the attempt was to be made by the pass of El Planchon to the south, opposite to Talca. With this object he went from San Carlos to Mendoza, and held a grand palaver with the Pehuenche Indians for leave to march through their territory to El Planchon. The news reached the Spanish Captain-General, who sent a large detachment towards Talca. The real intention of General San Martin was to cross the Andes by the Pass of Uspallata (p. 213) to Aconcagua, north of Santiago. The army left Mendoza on the 17th of January, 1817, consisting of 3,000 infantry, 960 cavalry, the staff and hospital train, besides workmen. All the men were mounted on mules, of which there were 7,359 for the saddle, and 1,922 for baggage. The provisions consisted of jerked beef, seasoned with capsicum, toasted corn, biscuit, cheese, and onions. The field-pieces were slung between two mules when on tolerably smooth ground, but often it was necessary to drag them on sledges made of dried bullocks' hides, called *sorras*, and even to hoist them up very bad places, or lower them down with derricks. Depôts of provisions were formed at every twelve leagues. The suffering of the troops were very severe; all suffered from the rarefied air (p. 175) and intense cold, and several died," the Pass being 13,125 feet above the sea, and the limit of perpetual snow in that latitude at about 13,000 feet. The result of this expedition was that the Spaniards were defeated, and Bernardo O'Higgins elected Supreme Dictator of Chili. No attempt to re-oust them proved successful, and on the 3rd of April, 1818, the battle of Maypu, in which the Spaniards were utterly routed, may be said to have completed the independence of Chili. Aided by Miller, Cochrane (Lord Dundonald), and other foreigners in their service, the "Patriots" carried point after point, until, in January, 1826, the Spaniards were driven out of their last stronghold in the island of Chiloe. The actual independence of Chili, though usually dated from 1810, is thus only about a century old. In that interval the country, though not without troubles from within and without, has on the whole progressed wonderfully. There have been occasionally civil broils of the usual Hispano-American type when a new President has been installed, and an old one's adherents, or the friends of a rival candidate, have been disappointed at the result. There

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have also been one or two troubles with Peru, and the neighbouring Republics, not a few little wars with the Araucanian Indians, and in 1864 one of short duration with Spain, the nature of which was peculiarly disgraceful to the attacking power, and perhaps not altogether to the loss of Chili, since the resistance then made is likely for ever to save her from further molestation. The result of the stability of the country is, that it has gained an amount of respect from foreigners which has been accorded to few—if any—of the other South American Republics. The Government is not without its faults, but it has the all-redeeming virtue of paying its debts, and reaps the reward by standing well on all the Bourses of the world. Contrary to what is the case in most of her sister nationalities, white blood predominates in Chili: hence the superiority of the people. They may not be



THE RAILWAY IN THE DESERT OF ATACAMA.

deficient in many of the vices and the apathetic listlessness of their race, but they are pleasant-mannered, kindly, not without enterprise, and so far understand the principles of good government, that they have ceased to imagine that any nation can be prosperous with militaryism unscotched, or that a community can be well ordered, or be trusted with free institutions, in which the civil element is not the supreme one.*

RESOURCES.

Silver, gold, copper, iron, lead, nickel, cobalt, borax, gypsum, nitrate of soda, and rock salt, are among the mineral resources of the Republic. In thirty years, from 1813 to 1873, the silver mines of Atacama yielded annually on an average £1,320,000. In the

* See the works of Claudio Gaye, Molina, Alonso de Ovalle (the last two in English versions), Mackenna, Markham, and other writers.

Department of Freyina, in the southern part of this district, is one of the greatest copper mines in the world, the adjoining province of Coquimbo being almost as rich, while the large copper smelting works of Urmeneta and Errazuriz and the rich mines



MONUMENT AT SANTIAGO TO THOSE WHO PERISHED DURING THE BURNING OF THE CATHEDRAL IN 1863.

of Carrizal, Panulcillo, and Tamaya, constitute a great source of the wealth of Chili. Most of the region is rather barren, but the highly cultivated vale of Hunasco is not excelled in productions by any portion of the country. In Central Chili, Aconcagua is accounted the garden of the Republic, as well as the settled regions of Santiago, Valparaiso, Colchagua, Talca, Maule, and Nuble, where are situated the finest cultivated estates, the most important

towns, and generally the finest farming country, just as in the north are to be found the mining regions, and in the south the pastoral country. South Chili commences at the River Itata, and includes the provinces of Concepcion, Arauco, Valdivia, Llanquihue, and Chiloe. It is very wild, the Araucanians being only partly subdued, and, in reality, in many parts of it absolutely independent. Coal-fields, great forests, good grazing land, and regions on which, notwithstanding the moisture, many kinds of vegetable products can be cultivated, may be mentioned as the characteristic of this part of Chili. There are German colonies at Valdivia and Port Montt, as prosperous as a colony of thrifty Germans in the New World usually is, but hitherto the country has not proved to possess many attractions for immigrants. The coal-fields of Chili, though not containing the best quality of material, are yet among the most extensive in the world, spreading along the coast from the province of Concepcion to the Strait of Magellan, where we have already noted their existence, and are yet destined to have a great influence on the future of the country. Of the entire metal export, seventy per cent. is copper, and twenty-five per cent. silver. The coal dug is so rapidly increasing in amount, that within a short time most probably nearer 3,000,000 than any smaller number of tons will be the output of the Chilean pits.

Chili is about equally an agricultural and mining country, forty-four per cent. of the exports coming under the head of mineral products, and forty-six under that of agricultural, the remaining moiety being manufactures on a small scale, and such-like. The competition of California has forced the Chilean farmer to look to his profits, by discarding the exceedingly primitive implements which, for three hundred years, had satisfied the agricultural wants of his fathers. In the place of the plough made of pointed sticks, the oxen and mares to tread out the corn, the rude winnowing by the wind, and the primitive mills, Chilean "ranchos" are now supplied with the most approved machinery from England and the United States, while the flour mills are quite equal to any but the very finest in Great Britain or North America. Yet Chili can never be a great agricultural country, as about eighty-two per cent. of it is desert, mountain pasture, and forest, and only eighteen per cent. of the remainder arable land. Wheat is the chief product, the returns being for the whole country seven for one, and of the average yield of 1,350,000 quarters, about two-thirds are exported either in grain, flour, or biscuit. Barley, maize, kidney-beans for the national frijoles, pease, potatoes, walnuts, olive-trees, mulberries, vines from which are made indifferent "claret" and "port," a coarse brandy, and various other beverages of about equal value, lucerne, &c., are among the other agricultural staples. Of the timber of the Chilean "cedre" we have already had occasion to make the acquaintance in passing Chiloe on our voyage from the south. The cypress (*Libocedrus*), the quillay (*Quillaja*), the laurel (*Laurelia*), the luma (*Myrtus*), the espino (*Acacia Cavenia*), the Chilean oak, or roble, in reality a beech (*Fagus obliqua*), the lingue (*Persea*), the peumo (*Cryptocarya*), and the Chili pine (*Aruncaria imbricata*), may be mentioned among the first trees from which either timber, or timber products, are got. The last-named is the "monkey puzzle," and probably the Chilean tree, which is most familiar to us in England, as it is a common ornament of almost every shrubbery. It grows in its native country to the height of 150 feet, and when seen from a distance looks like a gigantic umbrella. The cone contains seeds about two inches long, which, when cooked,

form a delicate dish. The timber is good, and under the rule of O'Higgins, the trunks were used for ships' masts, but nowadays the increased expense of labour prevents them from being brought to the coast with any chance of profit. It belongs to the same genus as the Bunya-bunya pine of Australia, the seeds of which are also eaten, and the Norfolk Island pine, and is also represented by *Avicaria Brasiliensis*, which grows in great forests in the south of Brazil. The apple orchards of Valdivia are celebrated, but it is not until we come into more northern—and, of course, in this southern latitude—warmer regions, that we find pear and peach groves. The strawberries of Tome, in South Chili, bear a great reputation throughout the country. Flour mills, smelting works, tanneries, breweries, rope-walks, and soap works, are among the few manufactures which the sparse population and correspondingly high rates of labour have allowed of, but wine-making and other industries are gradually making way, and will, in time, assume respectable proportions. Valparaiso and Santiago are large cities where nearly every branch of commerce is carried on, and where most of the luxuries of civilisation, though not all the comforts, may be had by those who can afford to pay extravagantly for them, for Chili is essentially a dear country for the European to live in.

Guanacos, vicuñas—closely allied to the guanaco—otters, wild foxes, chinchillas, and other wild animals are numerous in the less settled parts of the country, where also the puma makes much anathematised ravages in the farmyard. Chilian jerked beef is, if anything, a little more toothsome than that unsavoury delicacy usually is. The horses can endure more than those of England, but Messrs. Black and Walters consider them inferior in strength, as they undoubtedly are in height and swiftness, to those of this country. The birds are numerous, and many of them have already been mentioned, or may be yet noted. They are naturally, in many respects, the same as those of the Strait of Magellan, Bolivia, and La Plata. The fishes of the Atlantic and Pacific are, however, in many instances, different, even in the same latitude. Those off the coast of Chili are numerous. Of these, the picthuen, of the Bay of Coquimbo, is considered a great delicacy. Shell-fish are abundant, but with the exception of the small sweet oysters * of Chiloe, large mussels†—the “choros” of the Chilians—clams, and cockles, it needs an acquired taste before most of them can be appreciated. All the reptiles are harmless, and of the insects the small ants, which enter houses and destroy provisions, are the most annoying. The locust, which proves a sad pest now and then to the Argentine Republic, does not infest Chili. Chili, it will therefore be seen, has little of the tropics about it. In fact, though lying in such close proximity to subtropical countries, it is as a whole not nearer the equator than many parts of California, and, of course, its southern regions are less than temperate. It is only in Chiloe, Valdivia, and Llanquihue that exuberant vegetation is seen over any great tracts of country. There the luxuriance of plant life is almost as great as in the tropics. “The forests are frequently quite impenetrable on account of the creepers and the ‘quila,’ a rudely-branched reed, which, however, affords a good food for the cattle. A creeper (*Lardizabala biter-nata*) is used by the Araucanians instead of ropes. In the same districts grows likewise

* *Ostrea Chilensis*, only found on the west coast of South America, at Chiloe.

† *Mytilus Chilensis*.

the *coligué* or *colem* (*Chusquea Coleou*), a bamboo-like reed, which attains a height of thirty feet, and furnishes the shafts of the lances of the Araucanians and Pehuenches."

REVENUE AND TRADE.

The budget of 1876, for ordinary expenditure, was £3,366,080: of this sum £636,096 was for the military and naval expenditure. In 1874, the ordinary revenue was £3,132,344. In 1875 it yielded £3,220,000, and in 1877 it was estimated at £3,380,741, so that in round numbers the income and the expenditure of the Republic may be ascertained from these data. Great sums are being expended on public works, which are expected to be remunerative, but, as in the analogous case of India, this extraordinary expenditure disturbs the equilibrium of income and expenditure. Unlike some South American countries entire dependence is not placed on the Custom House as a source of revenue. The national income is derived from various sources. Two of these, namely, the tobacco monopoly and the *alcabalas*—or taxes on the transfer of property—are survivals from days of Spanish rule. There are also taxes on income derived from land, trade, and other licenses, and the remainder, and by far the greatest amount, as usual, from the Custom House. The total Chilian debt, from the latest estimate at my disposal,* is £9,296,200 (foreign), and £3,383,204 (home), or about four years' revenue. The charge for interest and amortisation of the foreign debt is about £431,300, and for internal debt £161,781. The first money was borrowed in 1822, and expended on revolutionary schemes. The interest on this sum—somewhat in arrears—was in 1842 capitalised at £757,500, with interest at 3 per cent. But since that time perfect good faith has been kept with the public creditors. In 1858 Chili raised a loan of £1,554,800 in London, and in 1866 the war with Spain compelled her again to come into the market, seeking the wherewithal to buy saltpetre to the tune of £1,120,920, at 7 per cent. In 1867 she again borrowed £2,000,000 at 6 per cent., and in 1870 she contracted another loan—this time for £1,012,700 at 5 per cent., to construct a railway from Chillan to Talcahuano. Next, in 1873, £2,276,500 at 5 per cent. was obtained to build the line from Curico to Angol, and finally, in 1875, £1,900,000 was contracted also for railroad schemes. The whole of these loans are to be redeemed at par by a sinking fund of 2 per cent. "The credit of Chili," writes Sir Horace Rumbold, for many years past British Minister at Santiago, "stands deservedly higher than that of some larger and more powerful States," though the tendency to borrow for the construction of remunerative public works is a vice that cannot be too carefully watched. The foreign trade of Chili, which averages about £14,000,000, is chiefly with Great Britain, and though, owing to recent commercial depression, it has shown a decrease, yet, on the whole, it may be said to be healthy. Still, every year, since 1872, the exports from Chili into Great Britain and *vice versa* have shown a steady decrease. Copper is naturally the chief export to England, the amount, in 1876, being valued at £2,696,190. Then comes wheat, and after that wool. Britain, on the other hand, sends cotton and woollen manufactures and iron, the whole, in 1876, being valued at £1,945,791. Railways are spreading throughout the country. At the end of June, 1877, there were

* "Statesman's Year-Book" (1878), p. 523; the figures, however, in the *Almanack de Gotha* for 1878, p. 598, show a less debt, and a greater revenue than those quoted.

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VIEW OF THE BAY OF VALPARAISO, CHILL.

nearly 1,000 miles opened for traffic, and 209 were in course of construction, and nearly finished. The ships which visit Chili are also chiefly English. In 1875, 2,401 English vessels entered Chilian ports, compared with 157 German ones, 95 French, 101 Italian, and 348 from the United States. The Chilian army is made up chiefly of volunteers and by conscription, and numbered last year 3,516 men. The navy, in 1877, consisted of ten small steamers, and two very powerful ironclads of the first class, which, in the event of the country being again attacked by sea, are confidently expected to give a very good account of themselves.

THE PEOPLE.

Chili is divided into sixteen provinces, which have in all a combined area of 132,606 square miles, and a population, by the census of 1875, of 2,075,971—(1,033,974 males, and 1,041,997 females). But as this census does not include the Indian population, and about 10 per cent. which in other ways were omitted, the population of the country at the date of the census is usually considered to have been about 2,333,568, exclusive of the Araucanians, Patagonians, and Tierra del Fuegians. The urban population was 725,190, and the rural 1,350,481. Among the non-Chilian inhabitants, 7,183 were born in the Argentine Republic, 4,678 in Germany, 4,267 in England, 3,314 in France, 1,983 in Italy, 1,223 in Spain, 931 in the United States, 831 in Peru, 383 in Austria, 318 in Portugal, 282 in Bolivia, 175 in Sweden, &c. The most thickly inhabited city was Santiago, which (including suburbs) contained 150,367. Valparaiso contained 97,737; Chillan, 19,044; Concepcion, 18,277; Talca, Serena, Copiapo, and Quillota, all the four latter being over 11,000, and the first over 17,000. The others are all below 10,000. In this number we have not included the Araucanian Indians, whose name has so frequently occurred in this sketch. They are said to number 50,000, though the estimate is often given very much higher;* but it is impossible to say for certain. In 1862 they were formally absorbed into the Republic, but in their own region in the south they still maintain an independence more or less real. Some years ago a notary of the French town of Perigord, with a soul above parchment and pounce, wandered away so far afield, and either got himself elected, or declared that he did—which was perhaps eventually the same thing—and thenceforward assumed most royal state. Not content with his savage monarchy he, in 1870, stirred up his quasi-subjects to war with Chili, and, driven out of the country, came to Europe to seek recognition—and raise money. He did neither, and after a chequered career, like many another jaded wanderer, sick at heart, and bitter with disappointment, he crept home to die in the hospital of his native town. Those who are curious about M. "de" Tonnein's career, and at the same time feel an interest in one phase of human nature, may have both gratified by the perusal of a curious account he wrote of his own life.† The Araucanian country comprises an area of 25,000 square miles; Los Angeles, the capital, has a population of upwards of 4,000. The inhabitants cultivate maize, breed horses, sheep, and cattle, weave coarse woollen cloths, and live in comfortable cottages, the beams of which are bound together with vegetable

* Sometimes even as high as 300,000.

† "Orelie Antoine I^{er} Roi d'Araucanie et de Patagonie, par lui memo" (Paris, 1863); Smith: "The Araucanians" (New York, 1855).

creepers. Many of them are Roman Catholics, but the majority are said still to believe in their great god Pillan, the creator and the ruler, and in numerous minor divinities. They have neither temples nor priests, and perform the rites of their worship by sacrificing some animal under the shade of the sacred Winter's bark tree. The Araucanians are also great believers in sorcerers, and consider that every death, other than by old age or violence, is caused by the evil influence of some person, who has bewitched the dead man or woman. It is therefore incumbent on the friends of the deceased to expiate his manes by doing vengeance on the individual suspected of having brought him to his latter end. Hence the Vendetta flourishes in Araucania. Though the majority of the inhabitants are Roman Catholics, yet there is, and has been for some years past, perfect religious freedom in Chili, and all creeds have alike a right to exercise the outward observance of their faith without let or hindrance. However, as in most Spanish American countries, the churches are frequented chiefly by the women, who have a monopoly of the real piety of the country. As for the men, though nominally "good Catholics," they in reality hold the opinions which, correctly or not, are ascribed to the "French School," and perhaps not unjustly entertain but an indifferent regard for the priests. An exception to this rule must be made in behalf of the peasants and miners who, like their class almost universally over the world, are very superstitious. Every year upwards of 20,000 people—the greatest devotees among whom are miners—pay pilgrimages to the Church of Andacollo, a small village in Serena, the object of adoration being a small, but it is understood particularly miraculous image of the Virgin. At the yearly festival, occasionally presided over by the bishop of the province, the image is carried round the square in procession, every spectator at the sight of it dropping on his bended knees. Large sums of money are presented to the Church, and altogether the shrine of the *Madre de Dios* at Andacollo is not the least lucrative of the ecclesiastical milch cows of Chili. Government—both local and central—is conducted, so far as I have been able to learn from books and private information, with rather more purity than is the rule in the New World. Justice is fairly dispensed, the law courts and the legal system generally is much superior to that which prevails in almost any European country, and education is in a prosperous condition, the sum expended on it in 1876 being £233,414. In Santiago 1 in every 3·8 of the population can read, and 1 in every 4·4 can write. The educational status is nearly the same in Atacama, Coquimbo, Valparaiso, Concepcion, and Chiloe, while the average of people throughout the whole country who can read is 1 in 7, and who can both read and write 1 in 8. One child for every 24·71 inhabitants goes to school, and each child in the public schools costs the Government an average of forty-five shillings. These statistics, which I owe to Messrs. Black and Walters' account of Chili, are "dry," but express a great deal in very small space. Hospitals and other benevolent institutions are found in considerable numbers, and are liberally supported both by the Government and people, though, in proportion to their number, more by the foreign residents than the natives. The people cannot be very moral, for there are no less than four foundling hospitals for a scattered population, one-fourth less than that of London, and in addition to several prisons, and a house of correction, a capacious penitentiary, which seems to be always well filled, as it figures in the estimate for £23,000 per annum. The press is not high-class. A tendency to

rodomontade in all things, and in politics to a municipal view of affairs, are the prevailing failings of the Hispano-American journalist. There are about fifty papers and magazines published daily, weekly, and monthly, in addition to English and German prints. There is nothing very striking in Chilean literature. The country has produced some good histories of the Wars of Independence, but the books composed by Chileans are almost invariably mere reflections in style and ideas of the more popular French writers. The scientific authors are, with very few exceptions, foreigners, or men of foreign descent. French literature is more popular than English in the proportion of three to one, three times more French books being imported than English ones, and ten times more than from Spain, the United States, or Germany.

There is not much distinctive in the Chileans' character. That is to say, their habits, ways of thought, and general social surroundings, do not impress a traveller who has visited, or resided in, any of the other Spanish American Republics, as having much peculiar to themselves. They "hold the same position to Spain as the inhabitants of the United States do towards England. Their instincts and language are Spanish, modified by admixture and intercourse with other nations. The conventionalities of social life are the same in Chili as in France, Belgium, and Catholic Germany: and this remark applies to dress, living, amusements, and propensities. Sunday is spent as a holiday, and enlivened by festivals, balls, theatricals, and concerts. Cricket and athletic sports are unknown, but good horsemanship is common. The very great extent of seaboard not only induces large numbers of the inhabitants to visit foreign lands—calculated to average 78,000—but promotes the diffusion of the civilisation of the most highly cultivated nations over the whole of Chili. The beautiful provinces of Valdivia and Llanquihue are colonised by Germans and North Americans, who prepare timber, meat, cheese, butter, beer, cider, and leather. The university and the learned professions have ever numbered among their distinguished members Polish, French, German, and Englishmen of science. The North American colonists have been chiefly instrumental in the construction of flour mills, telegraphs, and railways. At the commercial centres, such as Valparaiso, Concepcion, Copiapo, Coquimbo, and Huasco, many of the leading Chilean citizens are of English, French, and German descent." Altogether it is calculated that in the country there are 39,000 Europeans, chiefly Germans, French, and English. Yet, though Chili owes so much—as, indeed, do all her neighbours—to foreigners, she is by no means inclined to yield anything to them. They must come to her—not she to them (except, indeed, when she wishes to borrow money). As a specimen of this Chilean Chauvinism, I need only mention the fact that no foreign medical practitioner, no matter how distinguished he may be, or satisfactory his proofs of training, can practise without undergoing a fresh examination, *ab initio*, in all the branches of medical and scientific knowledge before the University. It is to be hoped that Dr. Sangrado is unknown in Chili. Chili is, however, take it all in all, perhaps the Spanish Republic in which the Europeans can most fittingly find a home. It is more free from internal disturbances than any of the others. The people are, if anything, more liberal-minded, and the climate more healthy. The time when most deaths occur is in December and January, when the heat is great, and the consumption of water-melons something incredible. Then dysentery prevails. The wettest provinces, which are also the most

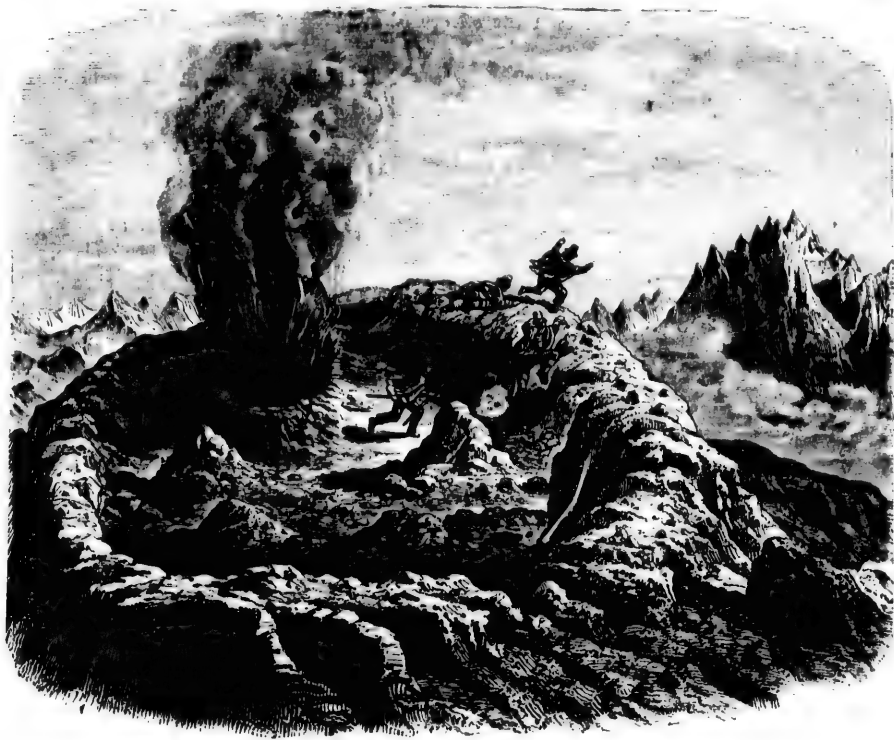
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INDIANS OF CUZCO, PERU.

southern, are the healthiest, and the period when least sickness prevails just before the rains set in. Gastric, typhoid, and typhus fevers—due to the miserable system of drainage—are the most fatal disorders. In most of the Chilian towns the sewage is carried down the street in partially open drains passing through the houses, sometimes filled with water, at other times nearly dry. There are, however, no intermittent fevers, and, curiously enough, Asiatic cholera has not yet passed the Andes. Even Valparaiso is not so well



VIEW OF THE VOLCANO OF ANTUCO, CHILE.

drained as from its situation it might be. Both Santiago and Valparaiso, 117 miles apart, are provided with tramways, fine hotels, and altogether have such a European aspect that occasionally it is very difficult to imagine oneself in a South American town, especially if the visitor has previously had a little experience of some of the peculiarly national towns lying to the north. Few priests are to be met with in the street, but to make up for this exception to the rule of Spanish American cities, the number of people in uniform is always rather great, the Chilian not being deficient in that vanity, which consists in arraying himself every now and again in parti-coloured raiment. In reality, however, most of these seeming soldiers are vigilantes, or policemen, who have a peculiar

habit of keeping up what Mr. Spry calls "an eternal whistling as they saunter lazily along, thereby carefully warning any evil-doer of their approach." At night, especially, do these bone whistles resound, as signals from one policeman to another, or as aids to the gratification of the official vanity of the vigilante, who is, nevertheless, by no means a very efficient guardian of the city. Every house has a flagstaff, and in the better-class buildings are devices in gas pipes, in readiness for those official illuminations and jubilations of which the authorities are so fond, that they fine all who do not take part in them. The police regulations are absurdly severe: even the offence of dropping a piece of paper twice in the street is punishable. After dark no hired boats are allowed to leave the shore, and after nine a pass is requisite even to land. On the outbreak of a fire, the occupant of the house is taken into custody, and detained until he can prove that the fire was not the result of carelessness. The business men are mostly of English, German, or American nationality, and judging from the busy streets, the crowds who come to listen to the military bands, or to promenade in the delightful evenings after the sun goes down, life is taken very easily in the Valley of Paradise, notwithstanding the fact that as ships and steamers of all sizes are coming and arriving almost daily, Valparaiso is a busy place.

Santiago, the capital (p. 273), containing 180,000 inhabitants, is described as even a finer city, with public buildings worthy of a European town. It is at the western base of the Andes, 1,800 feet above the sea level, or ninety miles E.S.E. of Valparaiso. The plain on which it stands is one of the most fruitful in the country. The climate is delightful, and the view of the Andes, which can be seen from any part of the city, is very magnificent. The city is built in squares, and the houses are generally low, and running round the four sides of a court-yard, intended as a place of refuge during earthquakes. Of late years, however, the more fashionable, or less timid residents, have taken to erecting fine three or four-storey houses, with a *façade* to the street, and a style of ornamentation rather too costly for a building which may at any moment be shivered to pieces by one of those earth shocks to which Chili is, as we have seen, periodically subject. On the 8th of December, 1863, while the church of La Campana was full of worshippers, it caught fire, and 2,000 out of the 3,000 people—mostly women—who formed the congregation were either burnt to death, suffocated in the smoke, or killed by the falling rafters. The engraving on page 281 gives a view of the monument which was erected to commemorate this most terrible incident in the history of the Chilian capital. The mint—in which are also the President's palace and the Government offices—the university, the normal school, the museum, and the cathedral, are the chief public buildings, while cool fountains and shady walks—such as that of the Alameda—are plentiful in this pleasant town of Saint James of Chili.*

* See the works of Maria Graham (1824); Schmidtmeier (1824); Caldeleugh (1825); Mathison, Stephenson Scarlett, Sutcliffe, Miers, Basil Hall (1825); the "Memoirs" of General Miller, and Lord Dundonald, Pöppig (1836); Perez-Rosales (1857); Bollaert (1860); Asta-Buruaga (1868); Fonek (1870); Menador (1873); Innes (1875); "Reports of Embassy and Legation;" "Consular Reports;" "Chili," in *Encyclopædia Britannica* (9th Ed.); "Quinto Censo general de la poblacion de Chile levantado de 19th abril de 1875, i compilado por la Oficina central de Estadistica en Santiago" (Valparaiso, 1876), &c. &c.

CHAPTER XVIII.

THE REPUBLIC OF PERU: ITS GEOGRAPHY.

PERU, Mr. Spenser St. John, the British Minister to that country, justly remarks, is "one of the most curious countries in the world, whether considered under its geographical or climatic aspects." Immediately north of Chili, and physically lying under somewhat the same conditions, it is yet in other respects entirely different. In the first place, as it stretches between 3° and $22^{\circ} 10'$ south, it is within the tropics, though its climate differs in many particulars from that of other regions in the same latitude. Most countries usually strike the traveller, who sees them for the first time, as something very different from the ideal which he had formed regarding them. Peru is especially disappointing. The luxurious city of Lima (p. 293) pervades the imagination of those who have read the early history of the country, while the gold and precious stones of the Incas, they are apt to forget, do not necessarily imply that the country out of which they were dug is either beautiful in appearance, pleasant in climate, or rich in soil. Accordingly, when Peru is first caught a glimpse of, the chances are that the visitor has many illusions suddenly dissipated. The first aspect of the country which any one approaching it from either the north or south gets, is a long range of "sandy or rocky shores, with scarcely a sign of vegetation, reminding the traveller of the countries bordering on the Red Sea, and yet every now and then, when streams descend from the snow-covered mountains, there are valleys of surprising fertility (p. 300), whose produce can only be limited by the amount of labour procurable, and the extent of irrigation. Still, as no rain falls on the coast, even the most verdant spots have a dusty and dry look. Wherever there is no irrigation, all is arid, rocky, or sandy, and most of the mountains bordering the plains have a stony, unenviable appearance. As you penetrate up the valleys into the mountains, everything appears barren, except the few green fields near the streams, where irrigating canals spread fertility. And yet one sees signs that in former times the sides of the mountains were cultivated, as many appear to be covered with gigantic steps, the former well-watered terrace-gardens of the Indians. Passing the first great range of mountains called the Cordillera, there are extensive barren steppes, three broad, well-inhabited, and fertile valleys, and then again over the Andes to the fine slopes leading to the Amazon and its tributaries, where the real tropical vegetation is seen in all its luxuriance." In this favoured region the Peruvian Government has made an attempt to found a colony, principally of Europeans, and at Chanchamago the experiment seems likely to succeed. Coffee plantations are being laid out on an extensive scale, while in the valleys sugar estates and food products claim the attention of the colonists. The distance from market is, however, so great, that until some cheaper mode of transport than the backs of mules can be discovered, the future of the settlement can never be otherwise than doubtful.

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THE POPULATION OF PERU.

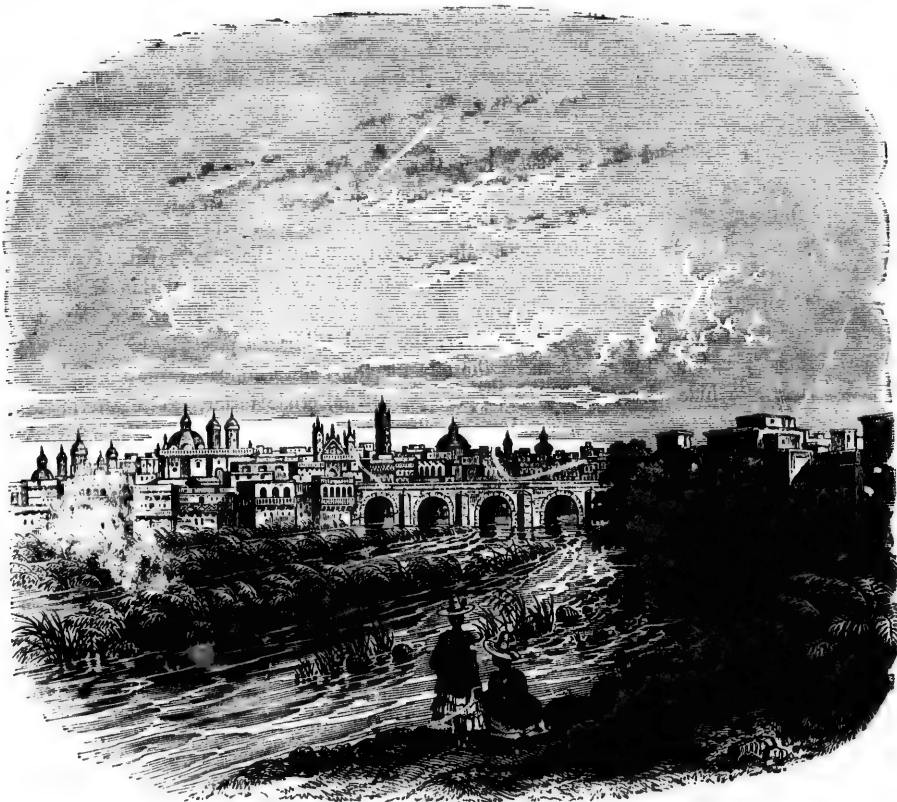
A walk through Lima, or any large Peruvian town, must impress the traveller with the belief that the population of the country is as varied as its physical features. Black men and brown jostle each other, and in some localities the yellow almond-eyed Mongol seems as numerous as the rather swarthy Caucasian. The negroes are descendants of the slaves who were imported from Africa; the Indians are, of course, the natives of the country, and greatly outnumber every other nationality; the whites the descendants of the Conquistadores, and those who followed them; while the Chinese have been imported of late years direct from the Flowery Land, in order to supply the necessary labour on the sugar estates, on the Guano Islands, and elsewhere. Statistics are very vague and imperfect in Peru, but a census, taken in 1876, gives the whole population of the country at 2,670,075,* of whom 1,352,151 are males, and 1,320,924 females, the unusual preponderance of males being due to the fact that the Chinese bring few of their women with them. The number of the Indians can be only guessed at, but it is known that the whites bear to the other races but an insignificant proportion. Even this official census does not correctly give the population, for in Peru, as in other countries where enlightenment is not predominant, the numbering of the people is received with that profound suspicion which the experience of many ingenious attempts at taxation is apt to engender. Hence, when the census day arrives, some of the less patriotic, but more cautious citizens, absent themselves from their homes.

INDUSTRIES AND TRADE.

Peru is divided into one "constitutional" (or federal) and two littoral provinces, and eighteen departments, the latter again each sub-divided into several provinces; and though there are shades of difference, and some valleys are noted for one kind of cultivation more than another, the produce of the country is throughout of a tropical character. In the department of Piura cotton is extensively cultivated; near Trujilla, in Libertad, cochineal is successful; while in the departments of Ica and Moquegua the vine is the chief plant reared. In all the coast valleys, the people are occupied with the cultivation of the sugar cane, but in the loftier situations of the interior wheat is grown with success, and on the eastern slopes of the mountains the coffee bush flourishes. In the western departments water and the want of agricultural labourers are what most retard the farmer; in the east, water is plentiful, but the toilers are equally few. A great proportion of the population is employed in the silver mines, for which the country is so celebrated, and in quarrying out the nitrate and guano deposits. The males, as we have seen, mostly predominate in the districts where the Chinese are chiefly employed as field hands, as in Lima, Libertad, Lambayeque, Ica, and in Tarapaca and Callao, where guano, nitrate of soda, and commerce induce labourers to congregate. But the Peruvian population is chiefly agricultural, only a relatively small proportion of the inhabitants being employed in mines, or in the guano and nitrate business. "And," writes Mr. St. John, "the impression remains on an observer that most of the exportable produce is the work of comparatively few

* Paz-Soldan ("Diccionario geográfico Estadístico del Perú," 1877) gives the population in 1795 as 1,232,122.

hands, the bulk of the population being engaged in rough agriculture, which does not enable the country to feed itself." A few years ago a mania for sugar cultivation took possession of Peru. The proprietors "went into" the business too frequently without calculating the cost and profit very narrowly. Machinery often calculated for two or three times the cane which can at present be cultivated was erected on the estates, though in reality the



VIEW OF THE CITY OF LIMA, THE CAPITAL OF PERU (FROM THE RIVER RIMAC).

market for the production is seemingly so limitless, that it is thought in time most other cultivations will give way to it. Worst of all, there is not labour enough to work the estates; the supply of Chinese coolies which was at one time believed to be on the point of flowing into the country has been stopped, and for the last year no labourers have come from the Flowery Land. In 1821 a law was passed that all negroes henceforward born in the republic should be free, and soon after Chinese were imported, so as to fill the slaves' places, and prevent them from striking for higher wages when they should be free. The contracts made with these coolies were for eight years, at four dollars a month, but the labourers,

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when not entrapped by the agents and contractors, were too often the mere scum of Chinese ports, criminals, and either unable or unwilling to work, and were crowded into such miserable vessels, that frequently numbers died on the middle passage from China to Peru. The farmers who wished "labour" had to pay down in cash for each workman about 400 dollars, or £75, for passage money and preliminary expenses. Henceforward they treated the unfortunate Celestials as their slaves, and the law giving them the power of flogging them, and keeping them in irons, the result was, in the greater number of cases, the worst usage for the new arrivals, who yet, notwithstanding the remonstrances of the Chinese Government, can obtain no redress for the cruelty of the planters, or the exactions of the police. Nor are the Government free from the charge of injustice. The contract wages were to be four dollars a month, but now the Chinese are paid in paper, which is worth from 1s. 8d. to 2s. 6d. per sole, or dollar, the average value of which is 4s. Up to 1878, about 43,000 Chinese had been introduced into the country, and but few had returned home. The export of sugar has greatly increased of late years, and may at present be estimated at about 85,000 tons, valued at £1,360,000, the greater part of which is sent to Great Britain and Chili, only about 12,000 tons being consumed within Peru itself, so that the total product may be set down at about 100,000 tons. The other important products of Peru are cotton, wool, and silver, the wool being at present chiefly exported from Mollendo, a rising town, chosen as the site for the sea terminus of the railway from Puno. Here also hides, Peruvian bark, copper ore, barilla, crude tartar, lead ores, tin, &c., are shipped, and of late years a considerable quantity of coca leaves (p. 188) have been included among the exports. A small amount of gold is sent out of Peru, but no estimate has been made of the quantity. Guano is another great product, as well as Peruvian bark, but both of these characteristic riches of the country we are now describing will be more fully referred to at a later stage of our examination of the Land of the Incas. Callao is the chief port of Peru, being the entrepot for the city of Lima, four miles inland. Of course, the bulk of the shipping is also British, and of late years the number of not altogether reputable individuals brought to the shores of the South Pacific by these vessels is on the increase. The ships, though sailing under the English flag, are in many cases manned to a great extent by Italians, Greeks, Austrians, and that mongrel crew known as Levantines, few of whom ever return from Peru, and if they do not obtain their wages and discharge by getting up some charge against their superior officers, which a British seaman would not bring forth, or by malingering, "they, as a last means of being left behind, desert, and many become petty shopkeepers, the whole of the petty shopkeeping being in the hands of Italians and Austrians, from the western shores of the Adriatic. The coast swarms with these seamen as fishermen, boatmen, and crews of small sailing craft, trading on the coasts of the republics of South America, most of whom have deserted from British ships, or obtained their discharge by wrong doing." Such at least is Mr. Vice-Consul Wilson's opinion.

MINES.

The silver mines of Peru are principally situated in the Cerro Pasco, and produce on an average about 1,400,000 ounces per annum. This amount, it is hoped, will by-and-by

be increased. In addition, a good deal of metal is obtained from other mines, and, as we have already noted in our account of Bolivia, a large amount also passes through Arica from Bolivia.* The silver mines of Peru were famous even in the days of the Incas, and it is said that even to this day the Indians know of veins which they will not inform the whites of, and only take a little ore from them when compelled by necessity. Von Tschudi† tells us that on one occasion he lent an Indian of his acquaintance a crowbar. The man brought it back, after a time, with the distinct traces of silver ore upon it. On being impeached with being engaged in mining, he scarcely attempted to deny it, but, true to his race, determined to keep the secret to himself, knowing the terrible misery which his countrymen endured when they had to work in the silver mines of the old Peruvians.‡ From the time of the Incas up to the present day, the Indians have been in the habit of burying their money and silver vessels, so that the riches forgotten in the soil must be great. The mines of Cerro Pasco were accidentally discovered by an Indian, named Huari Capeha, in 1620: and in 1667, Don Jose de Salcedo began to work several rich mines in the Province of Puno. Crowds of adventurers flocked to these new sources of wealth, but they quarrelled over their soils, and a pitched battle was fought on the plain of Laycaycota.§ Puno has an altitude greater than any considerable town in Peru, except Cerro Pasco, being 12,550 feet above the sea. Its cathedral is the largest building, at that elevation, in the world, and there are few anywhere better built or more massive. The town is comparatively modern, for the rich silver mines in the mountains of Cancharani and Laycaycota, at the feet of which it is built, were not begun to be developed until a little over 200 years ago. The secret of these mines was, it is said, communicated by a love-sick Indian girl to Jose de Salcedo, who worked them with immense profit, until his wealth excited the cupidity of the unscrupulous Count of Lemnos, the Viceroy of the country at that date. Though his richness were, perhaps, his only crime in the Viceroy's eyes, accusations sufficient to bring him to Lima, and eventually to secure his execution, were not wanting. In vain the unhappy silver miner offered a thousand marcs of silver a day to the judges if they would suspend execution of his sentence until he had time to appeal to the crown of Spain. But the triumph of the creatures of Del Lemnos was short, for when Salcedo's faithful Indians heard of his fate they stopped the drains of the mine, which soon after filled with water, and a small lake now occupies the spot, which tradition assigns to the locality, of the once rich vein, or "Veta de la Candelaria." The story of Salcedo and his silver mine is yet talked of in Puno as the principal event in its history. In 1663, these mines yielded 1,500,000 dollars' worth of silver in one year.|| Though the petition to the King of Spain was not in time to save Salcedo's life, yet it appears to have led to

* The arrangement between Peru and Bolivia was that no Custom Houses should be erected on the frontiers of the two countries, on condition that Peru paid to Bolivia 400,000 soles per year, or about £75,000. Since writing the account at p. 190, this treaty has been abrogated, and though it is believed it will soon be renewed, Bolivia has in the meantime established Custom Houses on her frontiers.

† "Reisen durch Südamerika" (1866-68).

‡ "Races of Mankind," Vol. I., p. 316.

§ Markham: "Cuzco and Lima" (1856), p. 304; and "Travels in Peru and India" (1862), p. 97.

|| General Miller's "Memoirs," Vol. II., p. 238.

some justice being done to his son, for he was afterwards created Marquis de Villa Rica de Puno, and took a leading part in subsequent mining operations, though he eventually died mad of disappointment at not being able to reach his father's source of wealth. Other mines, however, were opened out, and one vein—the Manto—was carried more than two miles into the mountain. From 1775 to 1824 the mines near Puno yielded ores worth 1,786,000 mares of silver, at seven to nine dollars the marc, the richest year being 1802, when the yield was 52,000 mares, but since 1816 it has been steadily decreasing, and in 1824, the year after the expedition of the Spaniards, it had sunk very low.* The total want of combination among the Peruvians, owing to the suspicion with which "moneyed men" in that country regard each other, prevents the formation of joint-stock companies to work these still undoubtedly unexhausted mines. Accordingly, in place of the numerous mines which once covered the hills of Cancharani and Laycaycota, the only operations at present carried on consist in extracting the silver from the coarsely smelted ores rejected by the miners of former days. Wool, nowadays, is one of the staples of Puno, and silver hardly ranks as a greater source of wealth than the butter which is exported from the port of Arequipa as the produce of the numerous flocks and herds which pasture on the soil, which the early explorers only valued for the possible ore which it might conceal. The town itself is a dreary place, "with low-thatched houses, of about 10,000 inhabitants,† through which glide noiseless llamas, and equally silent Indians, in garbs as sombre as that of the bare hills that circle round the town, and cut off the view in every direction except towards the Lake [Titicaca, pp. 173, 177, 181, 185]. Here are the bright waters of the Bay of Puno, bordered all round by a broad belting tortora, and relieved by a few rocky islets, each of which has its Indian tradition, and in one of which the royalist governors confined their patriot captives during the war of the revolution, without shelter from the sun or protection from the cold."‡ The town of Cerro Pasco, Dr. Archibald Smith described forty years ago as rather a poor place, and as these upland Peruvian village-towns have a common family trick of standing still, the description may apply with equal exactitude at the present day.§ It is situated 13,800 feet above the sea-level, in a hollow in the mountains, with the fine lake of Chichaycocha on its south, and surrounded on all sides with magnificent scenery, among which pasture great herds of cattle and flocks of sheep. Groups of tame llamas and shy vicuñas can be here and there seen, while the whole landscape is described as variegated with lakes, rivulets, and marshes, "whose surfaces are ever rippled by the fluttering flocks of geese, ducks, snipes, plovers, water-hens, herons, yanavicas, flamingoes, &c., which, at the proper and appropriate seasons, animate and adorn this wide expanse." Far off to the west, and skirting the limits of the great plains, can be observed, from the surrounding heights, strange fragments of stone that look at a distance like dark pine-trees rising under the shade of the adjacent mountains. The population of the town is in a great degree migratory, and increases and diminishes according as the mines are highly productive, or in a state

* Markham: "Peru and India," p. 99.

† Paz Soldan: "Geografía del Peru" (1861), etc.

‡ Squier: "Peru: Incidents of Travel and Exploration in the Land of the Incas" (1877), pp. 356-357.

§ Smith: "Peru as it is" (1839), Vol. II., pp. 1-28.

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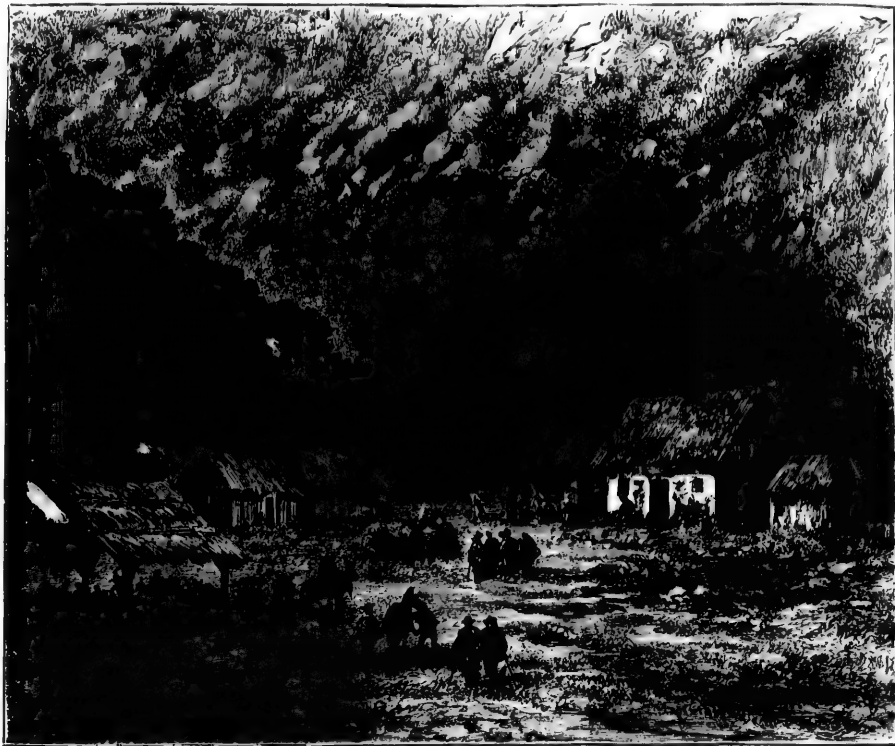


WASHING GOLD ON THE BANKS OF THE RIVER URUBAMBA, EASTERN PERU.

of poverty and inundation from want of proper drainage—the *bête noire* of these and other Peruvian mines situated at a great elevation. The number of inhabitants even in the winter was, perhaps, never much under 4,000 or 5,000, but at the time our author wrote they had been known to swell up to twice that amount, the most active part of whom, of course, found accommodation under ground. “When the mines were thus productive,” writes Dr. Smith, “the abode of the master-miner rang with the clink of hard dollars, as the die was kept in constant motion; and the fair sex crowded from the more genial vales, and enlivened the miner’s home with the song, guitar, and dance.” The climate for half the year is exceedingly gloomy, and variable and changeable. In the course of a few hours the wind will veer round the whole points of the compass, and from sunshine the weather will change to rain, sleet, snow, hail and rain again. The lanes, during the winter months, are simply miry ditches, while the average climate may be guessed from the fact that the temperature rarely rises above 44° in the shade, and as seldom falls below freezing. During the dry season—that is, from May to November—the sun at noon shines forth with great force from a cloudless sky, but at night the frosts are intense, and the mornings piercingly cold. In August, the air is so remarkably dry that the nose and face become parched and painful; in some people, indeed, to such an extent, that they are forced during that month to seek a more temperate climate a few leagues away. At Cerro Pasco, and still more at most mines situated at a still greater height, the oppressiveness caused by the great rarefaction of the air is also felt. This we have already noticed, but a German mining captain—Herr Emile Hünicken—has described the effect upon the Indian labourers in the Mexicana mine, in San Pedro de Espina, that though this locality is situated within the Argentine boundary, we may take his data as equally applicable to all mining districts situate like that of Puno and Cerro Pasco, at a great height. The Mexicana mine is situated between 13,000 and 15,000 feet above the sea-level, and is worked by miners who live in badly-lighted little huts, above the clouds, and whose lives of privation and misery are complicated by dangers without number. “Around and above him all verdure has disappeared. He can only perceive three colours: at his feet, the clouds resemble a whitish-grey mist, a hazy ocean, from whence emerge the peaks of the mountains; before him, the white plains of the eternal snow, and above him an invariably blue sky of a deep blue colour. The only animals—save the dog—which have followed man to these stormy regions, are a bird and a small rat both of a greyish colour. In the shade the thermometer always remains below zero in these habitations, which are probably the most elevated on the earth, because they surpass, by more than a thousand feet, the gold regions of Tibet and the Himalaya. Water is procured by melting ice over fires which are kept up night and day, and the comestibles are preserved for several years. Meat can only be cut by means of the axe or the saw. It loses its taste in this continually frozen state, and I myself have been able to verify that an almost petrified piece of beef found in a mine abandoned for a year previous, and which I had caused to be cooked—it could not be wasted—had completely lost its taste. Although the extremely rarefied air regularly causes headaches and other indispositions to novices, the lungs soon become accustomed to it, and it produces a greater activity. The movements of the body at this height, however cautious they may be, occasion

a palpitation of the pulse, and a very great agitation of the respiratory organs. It is dolorous to hear the sighs and groans of the *apines*, or porters, who come from the depths of the mines to discharge their sacks filled with from fifty to eighty kilograms [about 175 lbs. avoirdupois] of ore. This labour appears to be beyond the power of human energy, and yet I know some miners who have thus laboured, eight or ten months *per annum*, for thirty or forty years." To return to Cerro Pasco, further to the north, but at considerably lower elevation in the Andes. The rigour of the climate of this town is mitigated by the fact that about five miles from it is situated a coal mine, while at Puno the llamas' excrement—mixed with rushes and long grass—is the only fuel, unless when "champa," a turf (not peat) cut from the surface of the marsh land, in the frigid districts of the Sierra, can be got. Charcoal is expensive, and accordingly cannot be used for smelting purposes, though in the houses of the richer miners it is occasionally burnt. Fodder is scarce: barley is grown, but is always cut when green, though potatoes and "alcaser" are the principal vegetable products—and a league lower down, at the village of Cajamarquilla, wheat is grown, and numerous little gardens of onions, cabbages, lettuces, and flowers are cultivated for sale to the miners and clergy of Pasco, which, throughout the year, is supplied with a variety of fruits, and plenty of fresh meat and other provisions from the warm or temperate valleys below, and the lakes and plains around the mines. The prodigal system of working the mines has led to many of them being utterly ruined by the unchecked eagerness of the owners trying to get the greatest amount of ore, regardless whether this could be obtained with safety to the mine. Hence, owing to the pillars of ore which ought to have been allowed to stand being quarried away, "caves" have been frequent and most disastrous in every respect to the labourers' lives and the proprietors' pockets. In most mines a labourer is paid either in money or in ore. If the mine be a good one—or, in his language, "boya," or "bolla"—then his daily pay or "mantada" of ore might be worth a great deal, or, on the contrary, if it is a poor one, worth little or nothing. In the latter cases the labourer usually insists on being paid a regular wage in money. If, however, the mine be rich, he prefers the gambling excitement of the "mantada." As the *capachero*, or porter, laden with his load of ore in the *capa-ho*, or leathern bag, comes gasping to the surface, his wife usually awaits him with a pot of *chicha*, or maize spirit, which he eagerly grasps. Here the "mantada" of ore is assigned to him according to well-known rules, and carried home by his spouse, not unfrequently only to be squandered in dissipation, or on the pageantry of church festivals and processions. At the mouth of the Great Mine, called the "King's Mine" (*La Mina del Rey*), which rendered the family of Yjura so famous and wealthy, Dr. Smith mentions that a labourer has been known to refuse eighty dollars for his "mantada," which abounded in pieces of *polverilla* and *massisa*—an ore rich in native, and nearly pure silver, but necessarily rare. It does not follow that this rich ore is in the end the most profitable to the mine-owner, for its very richness tempts the labourers to steal it to such an extent that the poorer quality often pays better, because it does not tempt the cupidity of the miner, who cannot conceal enough to make theft worth running any risk for (Vol. II., p. 68). The "mantadas" are usually purchased by the "bolicheros," or proprietors of small hand-mills, in which they

grind small quantities of rich ores, by a primitive apparatus consisting of a kind of rocking-stone placed on the concave surface of a larger stone well accommodated beneath, and moved by a man who, with the help of a long pole, balances himself on the upper stone, which, by the weight and motion of his own body, he keeps rocking incessantly. The bolicheros are, in many cases, mere "fences" for the purchase of stolen ore. The



A FARM-HOUSE IN SOUTHERN PERU.

whole town of Cerro Pasco is honeycombed with mining excavations, often supported by pillars of rich ore, which are frequently filched from unknown to the householders, who live in unsuspecting security over them, until either a slight earthquake shock, or the weight of the superincumbent mass, breaks down the roof, and produces great disaster to life and property. The silver miner's life is one of continual embarrassment. Sometimes, in spite of the plunderers and rogues who prey upon him, he makes great gains with little outlay; but again, all is often outlay with no profit whatever. He is usually in the hands of the "habilitador," or capitalist, who lends money to aid the struggling mine-owner, taking repayment in plata-piña, or silver not entirely purified from the

mercury which adheres to it in the process of amalgamation. Added to this, the miner is usually a reckless gambler, who rarely thinks of the morrow, and formerly, owing



A PASS IN THE CORDILLERA, PERU.

to the vicious system of the last habilitador having the first claim to be paid, he not only involved himself further and further in difficulties, but also, by this absurd law, was enabled to postpone the payment of the creditors, who had, undoubtedly, the first claim on him, when feasts and frolics, cards and dice, left him anything wherewith

to meet his liabilities. The profits of working silver mines, however, greatly depend upon the price of quicksilver, which, with salt, is so essential in the operations of amalgamating the silver from the crushed ore. The great quicksilver mines of Huancavelica at one time yielded so extensively, that in seven years 600,000 lbs. of mercury were obtained from them. But these are now practically abandoned, and the quicksilver used in Peru is obtained from New Almaden, and other rich deposits in California. Up to 1878, a mine could be held for an indefinite period without being worked. Accordingly, out of 15,000 mines in Peru, not more than 600 had any miners in them. During the last ten years, over 36,000,000 dollars' worth of silver has passed through the Lima Mint to be coined or assayed. In thirty years—from 1790 to 1820—101,784,476 ounces of silver were smelted at the seven Government works, notwithstanding the difficulties in the way of transport and fuel, and the primitive methods employed. Mr. Gibbs, the present United States Minister to Peru, mentions that between the years 1630 and 1849, 475,000,000 dollars' worth of silver were produced from the Cerro Pasco mines alone.

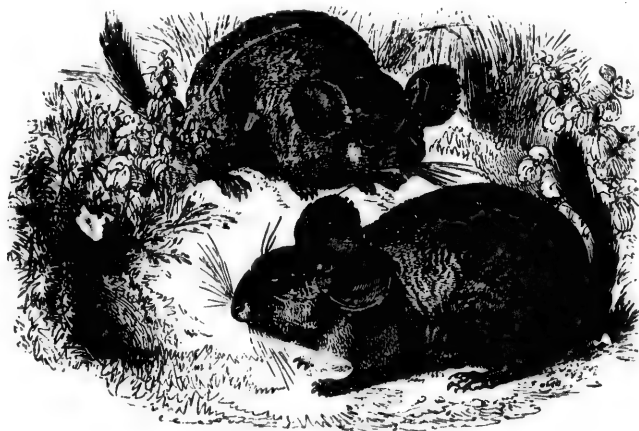
Gold is not extensively distributed in Peru, though it is reported to be abundant in the remote province of Carabaya, beyond Lake Titicaca, when washed out of the beds of streams by the Indians (p. 297), but no roads lead to them, and the country is destitute of labour. From some such locality the old Incas must have obtained abundance of gold, for the furniture of their palaces were plated with it, and most of their ordinary vessels were composed either of the precious metal or of silver. It is affirmed that in holes and caves of the earth, known by tradition to only a few Indians, have been concealed since the time of the Incas immense stores of wealth, which the Indians yet cherish the hope of using when the time comes. When the rebellion of Pumacagua broke out in 1814, it is said that the rebel chiefs drew upon these treasures. "An aged chief arrived at the house when Pumacagua was sitting in council, and conducted him blindfold up the bed of the Huatanay. After a walk of some hours, the bandage was suddenly removed, and he found himself in a cave, strewn with golden figures of every size and shape. Having taken as much as he could carry, he was conducted in the same manner to his own house, where he arrived, to the astonishment of the council, dripping with wet, and laden with the sinews of war." Mr. Markham, to whom I am indebted for this curious tale, had it from an old lady of the Astete family, whose father was a colleague of Pumacagua, and saw him return with his precious freight. When the rebels were entirely defeated on the plain of Ayavirine, on the road from Cuzco to Puno, Pumacagua offered with his last breath to produce a pile of gold larger than that collected by Atahualpa as a ransom for his life. The secret of the hidden cave has never been divulged. Searching for treasures forms almost a trade in Peru—Mr. Squier declares the chief one of the country—and no doubt there is much yet to be discovered. For instance, at Chimus were found, not long ago, in one of the ruins, a closet filled with vessels and utensils of gold and silver, principally the latter, piled regularly one layer above another, and apparently hidden away here at the time of the struggle between the Chimus and the Incas. The vessels were mostly in the form of drinking cups or vases, "some plain, others ornamented, of very thin silver, and oxidized to the extent of making some of them so brittle as hardly to bear handling." Some of the skulls found here were

either gilt, or encircled by bands of gold, ornamented with slender feather-shaped ornaments of the same metal. The Conquistadores' description of the Temple of the Sun at Cuzco, even allowing a little for their grandiloquent language and tendency to exaggeration, leaves no doubt that it was not only a stately edifice, but one abounding in riches. The cornices of the walls, inside and out, were of gold, or plated with gold, as were the inner walls. A great plate of gold at the eastern end represented the sun, and ranged beneath were the desiccated—or as some say the embalmed—bodies of the Inca Emperors, in royal robes, and seated in golden chairs. The numerous subsidiary structures in this building dedicated to the Moon, Venus, the Pleiades, thunder and lightning, and the rainbow, as well as for the supreme Pontiff and the temple attendants, were all richly decorated with gold and silver. The story that the terrace of the temple garden was covered with clods of gold, and supported an infinite variety of trees imitated, in gold and silver, with figures of men, animals, birds, reptiles, and insects, all in the same metal, Mr. Squier thinks must be received as a fable. The Incas were, judging from what we know of them, a remarkably sensible and practical people, and it is scarcely credible that they would thus recklessly lavish gold on imitations of firewood piled away in the temple—for this is also one of the Conquistadores' tales—or in such very useless objects as those described. No, doubt, however, Garcilasso de la Vega, himself of the Inca line, was right in saying that the walls of the temple were lined with plates of gold. In several public and private museums of Cuzco there exist several of these plates, which are simple sheets of pure gold, beaten as thin as fine note-paper. The Inca chain, sunk in some lake near Cuzco, is said to have required 800 men to carry: but this the author does not expect the reader to believe unless he chooses.

Tin and copper ores of high quality are found in Southern Peru, between the Cordillera and Andes ranges, in the form of little nodules in the drift, and are obtained by washing, but are entirely shipped to England for reduction.

Another source of wealth, which of late years has come into note, is the great deposits of nitrate of soda or saltpetre which exists in the southern departments, and is shipped from Iquique and other small ports. Its uses are many, but it is chiefly as a fertiliser that it is in demand. In the Pampa of Tamarugal and in the Tarapaca province these deposits of nitrate of soda and borate of lime are so great, as to be practicably inexhaustible for hundreds of years. It was calculated, in 1861, that the nitrate of soda grounds cover an area, in the districts mentioned, of fifty square leagues, and that allowing 100 lbs. weight of nitrate for each square yard, there would be 3,000,000 tons lying ready for use, so that at the rate of shipment, Mr. Bollaert calculated the deposits would not be exhausted for 1,393 years. The same estimate—minus 3,000,000 tons—will apply still. But as no regular surveys have been made, this figure must be looked upon as little better than a careful guess. The nitre is a Government monopoly, and is chiefly exported to Great Britain. The object of the Government making the export of nitrate a monopoly was avowedly by decreasing the sale to raise the price. Both objects have been attained, for the export has been reduced from 326,869 tons, the maximum amount which left the country (in 1875), to 213,940 tons, as in 1877, and the price increased from £11 a ton to £16. But whether, after paying interest on the capital expended, and the expenses incident to working

and export, much profit remains, or a profit equal to a fair duty, Mr. St. John, in common with many others, doubt. Should it again fall below £15, the monopoly may prove a loss to the State. As it is, this State interference, with an interest, which gave employment to 330,000 tons of shipping, and to many thousands of people who were thrown out of employment, or injured pecuniarily, was a step so grave as to deserve the unpopularity which attended it in all quarters save the few interested ones. In 1875—as an instance of how a monopoly may benefit a few, but injure many—the town of Iquique had between 18,000 and 20,000 inhabitants. In 1876 the census gave only 11,717, and in 1877 it was estimated that there were not more than 7,000 or 8,000 in this once flourishing town, though it ought to be added that in 1875 Iquique suffered from a



CHINCHILLAS OF PERU (*Chinchilla lanigera*).

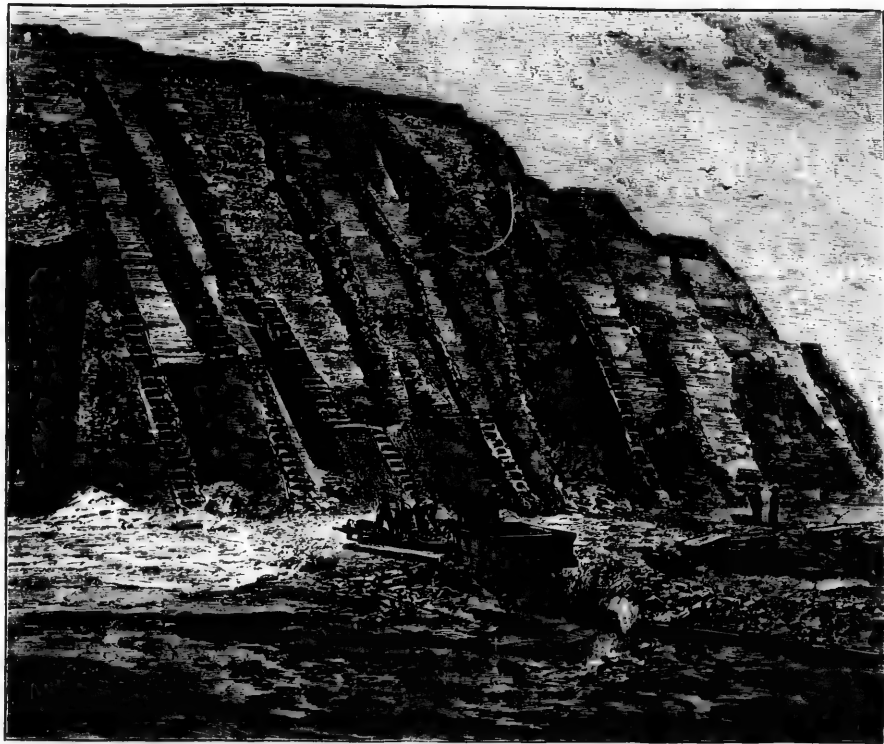
fearful fire, and in 1877 from that great earthquake wave which swept in upon the Peruvian coast, doing an enormous amount of damage. To force proprietors of nitrate grounds, who have not made over their property to Government, to do so, a duty of 11s. per 100 lbs.—simply a prohibitory tax—has been enforced on the export of the substance, and, in addition, the Government have fixed a near date, after which no proposals of transfer will be entertained. The shipment of borax is prohibited by the Government.

GUANO.

Guano* is, however, the great source of Peruvian riches, or rather, the one which is most easily got at, and with the least expenditure of unproductive capital. It is merely the excrement of innumerable sea-birds throughout unnumbered ages, the exceeding dryness of the coast climate having allowed it to remain on the spot where it was dropped. Mixed with this material are also the eggs of the birds, often converted into

* A corruption of Huanu (manure).

ammoniacal salts (large lumps of which are found among the guano), their bodies, and the remnants of seals. The guano is still in course of deposition, but the seals have been so much hunted that they now rarely venture to desert the beach, but frequent the caves, shores, and low rocks washed by the waves. Formerly, they came a considerable way inland, and, indeed, travelled to the centre of the islands, and, as is proved by the deposits of their skins and bones, even at their highest points. At the Lobos



DIGGING OUT GUANO IN THE CHINCHA ISLANDS, PERU.

and Macabis Island, Mr. Squier notes that the birds are still increasing the deposit very rapidly. Several species of sea-birds frequent the Guano Islands, but the one which chiefly contributes to the guano deposits is the "peynero," which, though smaller than a goose, will leave from four to six ounces of excrement per diem, and in the space of ten weeks, which is the length of the breeding season, will return, for the hospitality afforded to it, from eighteen to twenty pounds' weight of this unsavoury source of Peruvian wealth. There are also deposits of guano at Bahia de Ferrol, but it is formed almost exclusively by seals, and is so full of the bones and skins of these animals as not to pay exportation. Long before the Spaniards landed on this coast, to destroy a nobler

civilisation than their own, the use of this odoriferous manure was known to the Incas. Garcilasso de la Vega tells us that the birds were protected during the breeding season with such care that it was not lawful to land on the islands on pain of death, lest the birds should be frightened or driven from the coast. "Neither was it lawful to kill them at any time, either on the islands or elsewhere, also on pain of death. Each island was, by order of the Incas, set apart for the use of a particular province, and the guano was fairly divided, each village receiving a due portion. Now, in these times, it is wasted after a different fashion."* This, however, did not long continue, for no sooner did the South American Republics attain their independence than they began to devote part of their attention to the deposits of manure on the desolate islets off the coast of Peru. In 1804 Humboldt had brought specimens of it to Europe, but it was not for nearly forty years afterwards that it became an article of commerce. This trade attained great proportions after 1852, when a dispute between Peru and the United States, regarding the possession of the Lobos (or seal) Islands, was settled through the mediation of Great Britain and France in favour of the latter country. Hitherto, the shipments of guano had been entirely free; but henceforward guano became, as it had been in the days of the Inca empire, a State monopoly, and a source of revenue, unauthorised exports being prohibited under heavy penalties. In 1876, 156,864 tons, valued at £1,966,068, were sent to Great Britain, its value as a top-dressing being equal to nitrate of soda. The supply of guano is not, however, likely to soon decrease, as the most careful search has only resulted in finding additional deposits in the West Indies (Sombrero, &c.), on the coast of Africa (at Ichaboe), in the Arabian Kooria Moorla Islands, and on the shores of Chili, Bolivia, Patagonia, and Australia. The Ichaboe deposits were exhausted as early as 1845, while the guanos from most of the other localities are much inferior to the Peruvian article, having lost one or more of their most valuable constituents. On various other places—for example, on Ascension Island—there are small deposits, but nothing such as would render them of commercial importance. The guano has now become an important source of revenue to the country. For instance, in 1859, fully three-fourths of the State expenses were defrayed, as Mr. Markham puts it, "by shovelling heaps of dirt off a desolate island on the coast." It is also one of the chief "securities" which they give for their too frequent—and too *unremitting and disinterested*, as the unhappy bondholders know to their cost—loans, though the immense sums so easily obtained have been recklessly and extravagantly squandered by the incapable or knavish rulers with whom Peru, like most South American countries, have for long been cursed. The peoples' heads got turned by the discovery that in these islands was a source of wealth undreamt of, and instead of reserving the revenue derived from it to pay their home and foreign debts, or to construct public works, the receipts were, as in General Echenique's time, either embezzled or "spent on immense and unnecessary armaments, and in jobbing salaries and pensions. Thousands of families"—Mr. Markham, an admirer, be it remembered, of the South American people, was thus writing with honest indignation in 1862—"now live on the public money, and when the guano receipts fail, the ruin and suffering will be severe, and widely spread. On the strength of the guano monopoly, almost all the taxes have been abolished, the tribute of the Indians amongst them, and

* "Royal Commentaries of the Incas"; Quoted by Mr. Markham, "Peru and India," p. 301.

the revenue is composed mainly of three items—guano, customs, and stamps. The foreign debt is 24,205,400 dollars, and the internal debt and compensation for slaves amount to a still larger sum. But the great drag upon the public treasury is the enormous army of 15,000 men for a population under 2,000,000, with upwards of 2,000 officers, those who are unattached being still on full pay. This will give some idea of the number of families who are living in luxury and idleness, on the public money, and of the distress that will follow the sudden stoppage of their incomes, which is inevitable when the guano comes to an end." In Peru there is no direct taxation, guano being the philosopher's stone that enables the people to get along without such disagreeable alternatives as those with which we of these income-taxed countries are only too familiar. Guano begets loans also, the last two loans being "secured" chiefly on the guano deposits. But even guano will not do everything for Peru: the receipts having lately fallen, and accordingly the immense public works, which were at last commenced, including a railway to the summit of the Andes, and the construction of an iron-clad fleet, one unit of which Admiral de Horsey, in May, 1877, gave such a sorry account of, besides the (non) payment of the interest on a large debt, have reduced Peru to the condition of having an annual deficit. A great many people in England are, therefore, naturally interested in guano, because, as the guano disappears, so do their chances of ever seeing the money which they lent on this vanishing security. Yet no country has less excuse for not paying its debt than the potentially rich, but actually poverty-stricken Republic. According to the estimates which have been made, the whole amount of guano in the southern deposits is not at present more than 1,800,000 tons, thus distributed:—

	Tons.							
Huanillas	...	...	...	...	...	...	...	1,000,000
Point Lobos	...	...	...	...	...	...	...	200,000
Pabellon de Pica	...	...	...	...	...	...	...	350,000
Chipana Bay	...	...	...	...	...	...	...	250,000
								1,800,000

But, aside from the tendency to exaggerate, it is difficult from the irregular formation of the ground to arrive at any accurate estimates of the amount of guano existing in the localities mentioned. The Point Lobos deposits are to be closed for a time, but at Pabellon de Pica there is considered to be enough to last for three years to come. In Huanillas it is believed that there is more guano than in any of the other deposits, while the amount at Chipana Bay, which has not yet been opened up by the Government, is given in the data already quoted. These estimates afford but poor comfort to the bondholders, who advanced £30,000,000 on the faith of guano. "Some other deposits has been announced," writes our Minister to Peru, in his report for 1878, "but as these announcements occur at stated periods without any further results, but little notice is taken of them. It appears, however, highly probable that other deposits may yet be discovered, the probabilities being more for than against it. There is an evident falling-off in the export of guano, partly arising from the difficulties of loading, partly from decreased demand, from the heavy stocks held in Europe, and from the agriculturists finding the quality so unequal. That the guano in the southern deposits is much mixed with stones and sand, there appears

to be no doubt, and although a portion of this extraneous matter may be petrified guano, which, when crushed, is valuable, still it is certain that there is little left of that fine guano for which the Chincha Islands were celebrated." On the Island of Lobos there are estimated to be still 600,000 tons of inferior guano, but all shipments there have for the present ceased. "The Government," Mr. St. John mentions, "has lately put up to auction 50,000 tons of a substance found in the guano deposits, called *culeche*, which some suppose to be petrified guano. They have received one bid of £3 19s. 1d. a ton, but its value, as a fertiliser, has yet to be proved."* At one time, all the guano sent to this country was obtained from the three Chincha Islands in the Bay of Pisco, situated about twelve miles from the mainland, so that it may be convenient to describe the method of shipment as practised in that locality so familiarly associated with what is, if not the staple of Peru, yet one of its most familiar exports. The islands are usually steep, and hollowed into caverns, which, in time, fall in, and so ruinously reduce the islets in size. Indeed, the three seem to have been formerly one large island, and in times yet more remote, Mr. Markham is of opinion that probably they were connected with the coast, as is shown by a chain of rocks, the Ballista Isles, and finally the island of San Gallan, which successively intervene between the Chinchas and the Hill of Lechuza, on the south of Pisco. The guano is over sixty feet in thickness, and is, or was, shovelled out by convicts. It was then loaded by aid of a small steam-engine, which worked a huge coal-scuttle-like iron trough, which dug into the guano, filled itself, and discharged the contents into a car. This, when filled, was drawn along a tramway to the edge of the cliff, where it was emptied (p. 305). The guano was then shovelled down a common shoot into the hold of the vessel which was loading. "Strong-brained negroes trim it in the hold at a stated price per hundred weight, but so penetrating and pungent is the ammoniacal scented dust of the guano, that they have to wear iron masks. The labourers engaged in the operation live in a few filthy cane huts, and the officials in iron houses." There is no water, of course, on the island, and though composed of manure sent all over the world to stimulate vegetation, no crops of any description. In the less frequented parts of the island, at the time of Mr. Markham's visit, thousands of sea-birds still laid their eggs in little caverns excavated in the guano. Some of the hills were covered with their nests. The "legitimate guano bird" is a species of tern; but there are also large flocks of divers, pelicans, and various species of gulls always visiting the islands, and contributing, as no doubt they have always done, to the fertilising deposits which give them the sole importance in human eyes. The Chinese are also largely employed on the Guano Islands, but owing to their bad treatment, home sickness, and disgusting employment, they frequently commit suicide. The islands are, of course, nominally under the Peruvian authority, but, in reality, the foreigners, who come hither for cargoes, make a law unto themselves, and this is not unfrequently a very peculiarly ill-regulated law.† When Humboldt visited the Chinchas,

* See also, Duffield: "Peru in the Guano Age" (1877); Cherot: "Le Perou: Productions, Guano, Commerce, Finances, &c." (1876).

† Markham: "Cuzco and Lima," p. 39; "Informes sobre la existencia de Huano en las islas de Chincha" (Lima, 1854); Paz-Soldan: "Diccionario geografico Estadistico del Peru" (1877).

he found the rock covered, in some places, to a height of 200 feet with guano, in horizontal strata, varying in thickness from three inches to a foot, and of different colours. In



A BRIDGE OVER THE URUBAMBA, EASTERN PERU.

some spots, however, it will be found of a uniform black colour upwards of 100 feet in depth, so that if his statement is correct, that "during 300 years the coast-birds have deposited guano only a few lines in thickness," the age of some of the lower strata must be extremely great.

CHAPTER XIX.

PERU: ITS PEOPLE, HISTORY, AND PROSPECTS.

THE people who inhabited Peru prior to the arrival of the Spaniards having none but the vaguest method of perpetuating the events of history, we are dependent for what we know of the chronicles of the country, up to the arrival of Pizarro, on the monuments which the Incas and their predecessors erected, and to their traditions collected by the Conquistadores and their descendants. The history of Peru may be divided into four stages: that preceding the arrival of the Incas, the Incarial period, the reign of the Spanish Viceroy, and the period succeeding 1820, when the country attained its independence and became a Republic. This form of Government it still retains.

PRE-INCARIAL TIMES.

When the highly-civilised Inca race arrived in the country, it is believed by some antiquaries that they found the low-lying coast lands in possession of a race almost as cultured as themselves, and in some cases even more so. How long this race had been there, and where they came from, are questions which no man has ever yet been able to solve. But that the people who built the dwellings of Tia-Huanuco, with its sculptured monolithic doorways, whose ruins yet astonish beholders, as they amazed the Incas who first saw them, and modelled their own dwellings on them, were civilised after a primitive fashion, admits of no doubt. These ruins stand at an elevation of 12,930 feet above the sea, and one of the mysteries is how an ancient civilisation could have centred round a spot which is now a frigid desert, and where the mere rarefaction of the air makes breathing difficult to those whose life has been passed in the low lands. Scarcely anything is known regarding the nature of this pre-Incarial civilisation, traces of which stretch from the Andes to near the sea, for at Pachacamac, twenty miles from Lima, there are the remains of a great city, and of the chief temple of this ancient people. Their religion seems to have been a pure theism, for when the Incas of Cuzco carried their arms across the Cordillera, they were astonished to find in this great temple—with doors of gold, inlaid with precious stones, and rivalling that of the sun at the Inca capital—no visible representation of any deity. The inhabitants called the being whom they revered Pachacamac, the Creator of the world, but the Incas were too politic to destroy the building, but contented themselves by erecting alongside of it a temple, and a house of the Virgins of the Sun, to the worship of which they gradually won the inhabitants.* The ruins of this city of the dead cover wholly or in part four considerable hills, and owing to the drifting of the sand over a considerable portion of the buildings, the site now presents a most forbidding aspect. "Profuse were the oblations and sacrifices of the Indians in this temple. Of the precious

* Bollaert: "Antiquities, Ethnology, &c., of South America" (1860).

metals the Spaniards took away, among their spoils, twenty-seven cargoes of gold [1,687½ lbs.], and 2,000 mares [16,000 ounces] of silver, without having discovered the place where were hidden 400 cargoes of these two metals, which is presumed to be somewhere in the desert between Lima and Lurin. Señor Penelo affirms that Quintera, the pilot of Pizarro, asked for the nails and tacks which had supported the plates of silver, bearing the sacred name on the walls of the temple, as his share of the spoil, which Pizarro granted as a trifling thing, but which amounted to more than 4,000 marcs [32,000 ounces]. We may judge from this what was the wealth of the temple in its greatness." When Hernandez Pizarro sent to plunder it, he obtained 90,000 pesos in gold, though the priests had, according to Miguel Estete, who wrote an account of the expedition, quoted by Oviedo, taken away 400 loads. Over this spot, which was once "the Mecca of a great empire," a few poor Indians vegetate in miserable cane and rush houses, contemplating the numberless graves and huge ruins of the mighty capital of their forefathers. To this holy place pilgrims seem to have resorted from every part of the country, anxious to sleep their last sleep in the sacred soil. Pachacamac is a place of death, not only, as Mr. Squier remarks, "in its silence and sterility, but as the burial-place of thousands of the ancient dead. Dig almost anywhere in the dry, nitrous sand, and you will come upon what are loosely called mummies, but which are the desiccated bodies of the ancient dead. Dig deeper, and you will probably find a second stratum of relics of poor humanity; and deeper still, a third, showing how great was the concourse of people, and how eager the desire to find a resting-place in consecrated ground." If any conjecture can be hazarded regarding the age of the people who built these ruins, which bear to the Inca structures much the same relation as those of Palanque and Axmul (p. 68) do to the work of the more modern Aztecs, it is that they are the handiwork of the same race as those who erected on Easter Island those platforms of masonry and gigantic statues regarding the origin of which the natives themselves are ignorant.

THE INCAS.

We know almost as little of the Incas. From tolerably well-sifted traditions it is, however, considered by the majority of historians probable that, twenty-five years before Norman William landed in England, Manco Ccapac, the first Inca, set foot in Peru, and began to build the city of Cuzco, on the shores of Lake Titicaca. He was accompanied by his wife, Mama Oello Huaco, and both represented themselves to be the children of the sun, sent by their father to instruct the Peruvians in his glorious worship, and in arts which they wot not of. They were commanded to march until a golden wedge or wand, as it is sometimes called, which they carried with them, should sink into the ground, and when they arrived at the spot where Cuzco now stands the wedge sunk, and the city was begun. Manco the Ruler—for so his name signifies—taught the simple people the arts of agriculture and architecture, and instructed them in a purer religion than they hitherto possessed, while his wife plied the distaff, and from her the women learned to sew, spin, and weave. Who this fabled—for we fear much of his history is fable—law-giver was, has been the subject of endless conjecture.

Some will have it that he was a son of Kublai Khan: others as positively assert that he came from Armenia. Wilder theorists claim him for the Egyptians, Mexicans, and even for our own country. About the same time, and most probably from the influence exercised by strangers who had left some civilised country, three South American communities took a start in civilisation far above the other South American tribes, and their traditions about that event bear a strong resemblance to each other. In Mexico, Quetzalcoatl

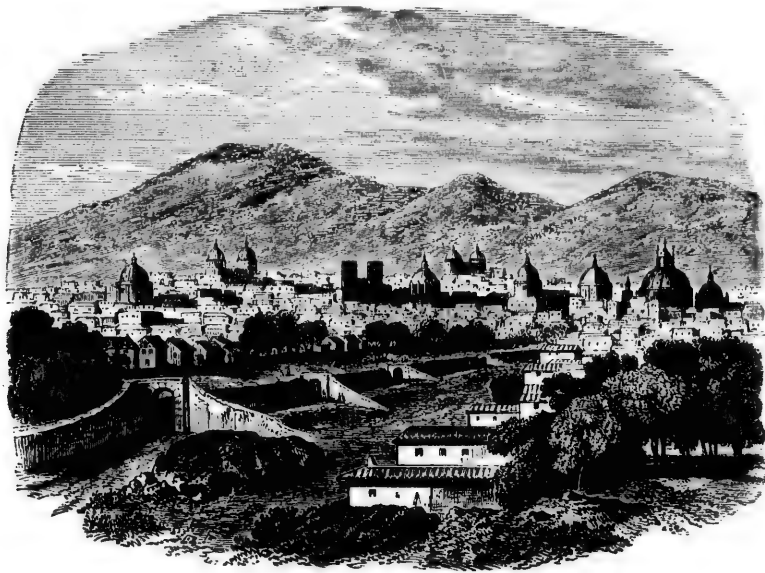


THE PASSION-FLOWER OF PERU (*Passiflora crispa*. Var. *suaveolens*).

(Vol. II., pp. 238, 253) appears to teach the Toltecs the arts and sciences; in the mountainous country around Bogota, Bochica, also a sun child, appeared to teach the Muyscas to build and sow, to calculate time, and compute celestial events by means of astronomical laws; lastly appeared in Peru Manco Ccapac and his wife. There seem good grounds for believing that all these law-givers came from China and other parts of Eastern Asia, and though it may be doubtful whether they had only been 400 years on the American continent, when, unhappily for them, the *Conquistadores* found out their homes, there can be little ground for thinking that their civilisation came not from without but from within.* It is, however, possible that the Incas

* Rivero: "Antiquidades Peruanas," Cap. I., p. 17.

came from Central America, and that Manco was by no means the first of them. Mr. Squior, indeed, scouts the whole tale, and considers that Peruvian civilisation slowly sprung up and spread among the rude savages of Peru, though, as they advanced in culture, they cleared away the more primitive structures of their barbarous days to make room for those of which we see the broken remnants. Be this as it may, Manco Ccapac was the founder of a great empire—equal in size to Adrian's, and larger than Charlemagne's—and in Mr. Markham's eloquent words, "the progenitor of an illustrious line of potentates, unconquered warriors, the patrons of architecture and poetry. Among them we have Inca



VIEW OF THE CITY OF CUZCO, PERU.

Rocca, the founder of schools, whose cyclopean palace still remains, a monument of bygone greatness; Viracocha, the Inca with florid complexion and flaxen locks, whose massive citadel still frowns from the Sacsahuaman Hill; Pachacutec, the Solomon of the New World, whose sayings are recorded by the pious care of Garcilasso; Yupanqui, who performed a march across the Chilian Andes, which throws the achievements of Hannibal, Napoleon, and Macdonald in the shade; Huayna Ccapac, the most chivalrous and powerful of the Incas, whose dominions extended from the equator to the southern confines of Chili, from the Pacific to the banks of the Paraguay; and, lastly, the brave young Manco, worthy namesake of his great ancestor, who held out in a long and unequal struggle against the Spanish invaders, and whose talent and valour astonished even the soldiers of Gonzalvo de Cordova. But he was defeated: the sun of Peruvian fortune, which for a few years had lingered on the horizon, sunk in a sea of blood, and the ill-fated

Indians fell under the grinding yoke of the pitiless Goths." Some of the features of this Inca civilisation I have tried to explain in another work ("The Races of Mankind"), and the volumes which Garcilasso de la Vega, Robertson, Prescott, Markham, Squier, Bollaert, and others have written on the subject must be referred to for a complete account of this strange civilisation which flourished in Cuzco, a city whose gorgeous temples and palaces surpassed in splendour anything which had hitherto been seen; "where trophies of victories won on battle-fields from the equator to the temperate plains of Chili, were collected: where songs of triumph resounded in praise of Ynti, the sacred deity of Peru—of Quilla, his silvery spouse—of the beneficent deeds of the Incas."

From Cuzco (p. 313) roads branched off in every direction, often running for miles through galleries cut in the solid rock. Rivers were crossed by swinging bridges of osiers, suspended high in mid air. Precipices were ascended by staircases, and valleys were filled with solid masonry. Such a road for 1,500 to 2,000 miles—about twenty feet broad, and paved with heavy flags of freestone—ran from Quito, through Cuzco, into Chili. Posts, marking the distances, were placed at proper intervals, and also houses where travellers could lodge over night. So thoroughly were the posts organised, that it is said that the Inca Huayna Capac ate fresh fish at Cuzco which had been caught the day previously at Lurin, on the Pacific coast, a distance of over 300 miles, in one of the most mountainous countries in the world. It is said that the Inca empire, at its period of greatest development, contained upwards of 30,000,000 inhabitants. This we think Mr. Squier is right in pronouncing a gross exaggeration. Only a small portion of the country is capable of cultivation, and therefore of supporting inhabitants, and, indeed, it was only by the greatest care, skill, and foresight on the part of the Incas, that the country was able to provide food for the people on its soil. Only China, perhaps Japan, and some portions of India, afford in modern times a parallel to the extreme utilisation of the soil which was effected in Peru at the time of the Inca empire. The Peruvian coast is, indeed, so forbidding that one wonders, after seeing it, what attractions it could have for its earliest explorers. For more than 2,000 miles it is a treeless, lifeless, waste of barren rock and sand, traversed only here and there by little green ribbons of trees, in spots where there is a little water, or where the contour of the soil is such as to afford the struggling cocoanuts, and such-like vegetation, some protection from the scorching rays of the sun falling on an arid soil never moistened by a drop of water. Altogether, I am inclined to believe that if the population included in the Inca empire were put at between 10,000,000 and 12,000,000, or about double what the three States wholly, or in part, comprised in it—Ecuador, Peru, and Bolivia—contain in modern times, the estimate would be a liberal one. Las Casas, "the good, but not very accurate, Bishop of Chiapa," tells us that "in the province of Peru alone the Spaniards killed above forty millions of people." The Conquistadores were a ruthless set of ruffians, and, after the manner of swashbucklers generally, did not under-estimate their feats in the Cadiz and Madrid taverns; but this is perhaps a little too much to give even a tempered credence to. The last Inca who can ever be said to have reigned, with undisputed sway, over an undivided empire, was Huyana Capac. He had two sons, Huascar and Atahualpa, between whom he divided his empire. Atahualpa, the "Aucca," or traitor, as he is still with abhorrence styled by the Indians, invaded

the territories of his brother, drove him from the throne, and by a series of butcheries, attempted to exterminate the royal race.

THE SPANIARDS.

But the end was approaching. Comets, signs, and wonders had been seen in the heavens, and strange men with unknown power were reported to have landed on the coast. That heroic swineherd, Francisco Pizarro, arrived with a handful of men, and, taking advantage of the distracted condition of the country, rapidly carried all before him, slew Atahualpa, and by his superior arms and knowledge soon overran the empire, and became master, in spite of the heroic defence made by the Indians. It is needless to repeat the familiar tale, which has been so well told by so many modern historians—how the Incas' descendants fled to the forest, there for a time to maintain their independence, thence to be seduced by false promises only to be cruelly slaughtered; how Cuzco, the royal city, was ruthlessly plundered, and the noble works of the Incas either destroyed or allowed to fall into decay—how gold, gold, gold, was the only ambition of the conquerors—an appetite which was never satiated; and yet the gold was no sooner got than it was gambled away or spent in debauchery. These, and a hundred similar tales, are fully narrated in the works I have so often referred to. Murder and rapine were the daily occupation of the brutal Conquistadores. But even the Indians failed to afford sufficient material for this, for no sooner was the country partially subdued than the conquerors turned like wild beasts one on another. Pizarro executed his old companion in arms, Almagro, and in his turn was assassinated by Almagro's son. Within a year young Almagro was beheaded, and in another twelve months Gonzalo Pizarro, another of the terrible brothers, murdered Nuñez de Vela, the Viceroy, and stuck the hairs of his beard as trophies in the hats of himself and companions. Gonzalo was himself put to death by Pedro de la Gasca, who came to quiet the new country, and so the pandemonium went on. Meantime, the Incas were sinking lower and lower. They tried rebellion, but were defeated. Then the daughters married the Conquistadores, and from these unions are sprung some of the noblest families of Spain and Peru, just as in similar circumstances the daughters of the Saxon nobles and the Norman earls and barons resulted in perpetuating lines which would otherwise have become extinct. By-and-by, the few surviving members of the Inca family were forced to live in Lima, where they were soon killed by the unaccustomed climate, or were lost among the population, until, at the present day, this imperial race only survives in the person of a few male descendants, who reside in the vicinity of Cuzco—still an essential Indian town less known than Paris to the fashionable people of Lima—proud of the memory of their forefathers, but it is needless to add, without cherishing the most remote idea of re-establishing their fallen glories.

Lima, under the Viceroy, became the capital of one of the richest and most famous of all the Spanish colonies "in the Indies." The "City of the Kings"—Ciudad de los Reyes, as it was at first called—founded on the 6th of January, 1535 (o.s.) by Pizarro, is the most interesting, historically, of all the capitals reared by the Spaniards, and was, for 300 years, the seat of the "haughtiest, and perhaps the most luxurious and

profligate of the Viceregal Courts." Its Viceroy was invested with royal power, and ruled in the height of Peruvian glory, not only what now constitutes Peru, but also the vast provinces of Chili, La Plata, New Grenada, Bolivia, and Ecuador, though the two latter had not obtained that name at the time they were under the Spanish crown. Here also flourished the Church, and the abominable Inquisition. Hence, Lima was at once, as it is partially yet, one of the most bigoted and immoral towns on the face of the earth. No city had such converts and churches, or were endowed with such a prodigality of wealth. In Lima was the college of San Marcos, the oldest university in America, founded fifty-six years before the English landed in Virginia, and sixty-nine before the exiles in the *Mayflower* set foot on Plymouth Rock. "Here," writes Mr. Squier, "Pizarro was assassinated by the men of Chili, the avengers of the stout and generous Almagro: and here his bones repose. Here was born and here died *La Patrona de todas las Americas*, the patroness of all the Americans, the only American woman who ever attained the honour of canonisation. From the turrets of the fortress of San Felipe, in Callao, the port of Lima, the flag of Castile and Leon floated for the last time, on the Continent of America, as the emblem of Spanish sovereignty. But, apart from these clustering historical recollections, we know that here centred the products of the mines of Potosi and of Pasco, and the marvellous wealth of Castro-Veireina and Puno. Here, too, in 1681, the Viceroy La Palata rode through the streets of his capital on a horse whose mane was strung with pearls, and whose shoes were of gold, over a pavement of solid ingots of silver. Here, too, centred the galleons of the East laden with silks and spices from the Philippines and Cathay, and on the verge of the horizon, off the land, hovered the sea-hawks, Rogers, Anson, Hawkins, and Drake, swift to snatch from the treasure-ships of Manilla the rich booty, which even the Virgin Queen did not disdain to share with the freebooters of the South Sea and the Spanish Main. Now Californian quicksilver is carried past the open shafts of the cinnabar mines of Huancavelica: the argentiferous "vetas" of Salcedo are abandoned; the sands of Carabaya are no longer washed for gold; and the infant State of Nevada supplies more silver every year than ever did Pasco and Potosi, and all the mines of Peru put together. The Indians can no longer be parcelled out to the favourites of power, and the negro no longer pays the tribute of unwilling labour to the rich proprietors of Lima. But the ancient 'City of the Kings' is still rich, still gay, and still flourishing, and more luxurious than in her proudest colonial days. If the sources of her ancient wealth have dried up, fortune has opened new and richer fountains, and the rough, rocky, and repulsive guano islands, which line the arid Peruvian coast, the terrors of the ancient mariners, and still the haunts of howling seals and screaming sea-birds, pour into her lap a more than Danaëan shower of gold; alas! with all its concomitants of social, civil, and political demoralisation." This graphic description gives in so brief a space such a perfect picture of the aspects of Lima past and present, that I can find no words better to express what is wished to be conveyed to the reader. Lima and the Limenos I have, in another work, described in sufficient detail, and need not again enter upon the task. At present the city contains—according to Paz-Soldan—104,932 inhabitants, and the department in which it is situated 207,085, while Cuzco, the old capital of the Incas, with the surrounding country, is put down in the last census as having 237,083 people.

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A FOREST SCENE IN PERU.

But one fatal day came an end of the rule of His Catholic Majesty. On the 28th of July, 1821, the independence of the country was proclaimed, long after the other Spanish republics had been established. Even then it was not by their own strong arms that the Peruvians gained freedom, but by the aid of San Martin and the Chilians (p. 279). For twenty-five years the country was distracted by revolutions and civil war, and up to date it has not been free from those "pronunciamentos" which are the curse of the Castilian race in the New World. Peru—the truth is—has not been the most successful of the new nationalities which sprung from the loins of old Spain. Let us, however, hope that better things are still in store for the Republic which rose on the ruins of the luxurious province of Peru, as it was reared on the wreck of the still greater and nobler empire of the Incas. The proud, yet kindly and polite people, are worthy of a better fate than being at the beck of political adventurers, who have yet to learn the rudiments of political science, and of knaves whose dishonesty was born with them. It would be an ungrateful task, and in a work of this nature an unnecessary one, to go over even in the slightest detail the history of these civil broils which continue up to the present time. To those who wish well to the Spaniards in South America, and their descendants, these are saddening, and all but hopeless. The Vandals who landed with Pizarro destroyed a happy Government. It may yet be the fate of their descendants to replace it by something better and more worthy of the race from which they sprang, than the distracted oligarchy which, under the name of a Republic, has for so long made the name of Peru an unwelcome one on the Bourses of the world.

REVENUE.

We are especially interested in Peru, for the greater part of its commerce is with us, and nearly all of this centres in the Port of Callao. In 1877 Peru sent £4,696,502 worth of goods to Great Britain, and in turn imported £1,421,031. Railways are being developed, 1,863 miles being open or in process of completion at the end of 1878, though at present the State railways in so sparsely a populated country are not, and were not expected to be, remunerative. Indeed, with the exception of the eight miles' line from Callao to Lima, and from Lima to Chirales (nine miles), none of the private ones are understood to be successful commercial speculations. The Peruvians' income and expenditure, though a painful subject with a great many people who have lent money to them, and get no interest on it, are not very well known, for the finances of the country, not being a subject for pride to anybody, are, in the slipshod kind of government which for long has possessed it, not published with much regularity or accuracy. Large annual deficits seem to be the rule, but the revenue and expenditure may be set down, in round figures, at respectively £6,000,000 and £7,000,000. The public debt of the country is large—much too large. The foreign liabilities are about £43,000,000, but the bonds have long been at a discount, while the sum owing in the country, exclusive of a floating debt of an unknown amount, is usually set down in the statistics at £2,500,000.

CLIMATE.

Yet Peru ought still to be a great country. It has abundance of resources, and a climate suitable for nearly all constitutions. Excessive dryness is its chief characteristic,

especially on the coast, where for many years consecutively not a drop of rain will fall, though the want of showers is compensated to some extent by heavy night dews. The coast climate is also moderated by the cool winds, and even in the valleys the heat is not oppressive. In Lima the highest summer temperature is 85° , and the lowest winter 61° Fahrenheit. February is the sultriest month. Yet, though under the tropics, Lima is not a tropical city in the strict sense of the term. From June to November it is often positively cold, the snowy peaks of the Cordillera being so near at hand, and also no doubt from the fact that the cold Antarctic current, with a temperature thirteen degrees less than the open sea, a hundred miles from the land, runs along on the coast. Lima in "winter" is not a pleasant place, owing mainly to the fog and damp, which so penetrate the air as to make everything—even the sheets of beds—chill and sticky, and the footpaths slippery and pasty. "The walls drip, the hand slips in endeavouring to turn the clammy door knobs, and feathery and almost ethereal fungus sprouts up in a single night from the depth of our inkstand, or replaces the varnish on our boots with a green and yellow mildew. Bone-aches and neuralgias walk the streets, and outrage their occupants unchallenged, and the noise of the church bells is stifled in the damp and lifeless atmosphere. We are assured that 'it never rains in Lima,' but the dense permeating mist not unfrequently forms itself into minute drops, when it is called *guara*. These soak through the flat thatched roof, discolouring the ceilings, trickling upon the floors, and rendering an umbrella necessary for the pedestrian in the streets." Yet Lima is a charming city for all of that. In the *Sierra*, or mountainous districts between the Cordillera and the Andes, or Eastern Cordillera, a region of magnificent scenery (p. 301), the climate varies according to the elevation and various local peculiarities, but unless at great elevations is very pleasant, and fitted for a European. The *Montaña*, or vast impenetrable forests which stretch for hundreds of leagues eastward from the Andes to the confines of Brazil, is an unproductive region, unvisited by the white man, and not even inhabited, save by a few wandering tribes of Indians (pp. 309, 317). Among the most untamable of these are the *Chunchos*, whose head-quarters are near the sources of the Purus. They have always repulsed civilisation, and have been one of the chief curses of the settlers, who had cleared a few farms, within sixty miles of Cuzco. In 1853 there were a few of these farms still existing, but in 1861 the settlers seem either to have abandoned the region, in fear of the Chunchos, or been massacred by them; and the luxuriant forest again covers spots where, not twenty years ago, crops of coco, cocoa, sugar, and other tropical crops were raised. The *Montaña* is certainly the most tropically beautiful portion of Peru, and the one which in other circumstances is likely to yield the richest return to the cultivator. The great forest trees supply fine woods and endless gums and resins. Lovely birds flutter through the foliage, preying upon the fruits which grow wild, or the insects which flit among the flowers (p. 312), while the Indians gather indiarubber, gum—copal, indigo, balsam of copaiba, vanilla, cinnamon, ipecacuanha, sarsaparilla, vegetable wax, and other products, which grow spontaneously in the woods, or are produced by the forest trees. In the plantations still existing on the edge of the mountain are found in culture small crops of tobacco, chocolate, cotton, coffee, and sugar, and other tropical products. Coca cultivation is indeed destined in no distant period to be an important one in Peru and Bolivia, even

though the Council of Bishops, which met in Lima in 1569, pronounced the Indian stimulant a useless and pernicious leaf, and on account of the belief entertained by the Indians that the habit of chewing coca gave them strength, "an illusion of the devil," though a great many people agree with the devil (pp. 187, 188). The great vegetable product, however, of the Montaña, is the Jesuits' or Peruvian bark, from which the well-known alkaloid quinine, so extensively used to check fevers, is derived. This bark was first employed in Europe in the middle of the seventeenth century, and derives its name from the Countess de la Chinchon, wife of a Peruvian viceroy, who first brought it to Europe. It is derived from various species of *Cinchona*, or, as Mr. Markham will have it, *Chinchona*, which grows in the Colombian, Ecuadorian, Bolivian, and Peruvian forests. This bark used to be collected by the *Cascarillos* Indians chiefly, who endure great hardships, but whose method of obtaining it was to cut down the tree which produced it. This, of course, soon thinned the more valuable trees, and such was the reckless stupidity of the Peruvian Government, that, though it put every obstacle in the way of the tree being planted elsewhere, they never attempted by a system of forestry to renew the riches thus improvidently wasted. The result was that quinine was getting scarcer and scarcer, and dearer and dearer every year, and threatened soon to be unobtainable. In these circumstances, the Indian Government determined to try and naturalise the tree in India. To obtain seeds and young plants was the difficult task assigned to Mr. Clements R. Markham, C.B., F.R.S., late of the India Office. This duty Mr. Markham, with his assistants—Dr. Spruce, Mr. Cross, and M'Ivor—performed most successfully, and a flourishing plantation—already yielding much quinine—on the Neilgherry Hills, will ever remain a monument of noble work well done. In Java and the mountainous region in Jamaica the tree has also got naturalised, so that we very soon shall be quite independent of the Peruvian forests for this valuable bark.* Another source of riches of the Montaña is also disappearing, owing to the reckless manner in which "the goose that laid the golden eggs" is being destroyed. We refer to the beautiful skins of the chinchilla (*C. lanigera*, p. 304).

We now leave the Land of the Sun and the New World for islands still sunnier, and a world still newer.

* See the numerous works of Mr. Markham, as well as those of Howard and Weddell, and the reports of Dr. Spruce and others. More recent researches in Peru, &c., are those of Dr. A. Basteau ["Die Culturländer des alten Amerika" (1878)], and on the border lands of the republic those of Señor Zeballos ["La Conquista de Quince Mil Leguas" (1878).]

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